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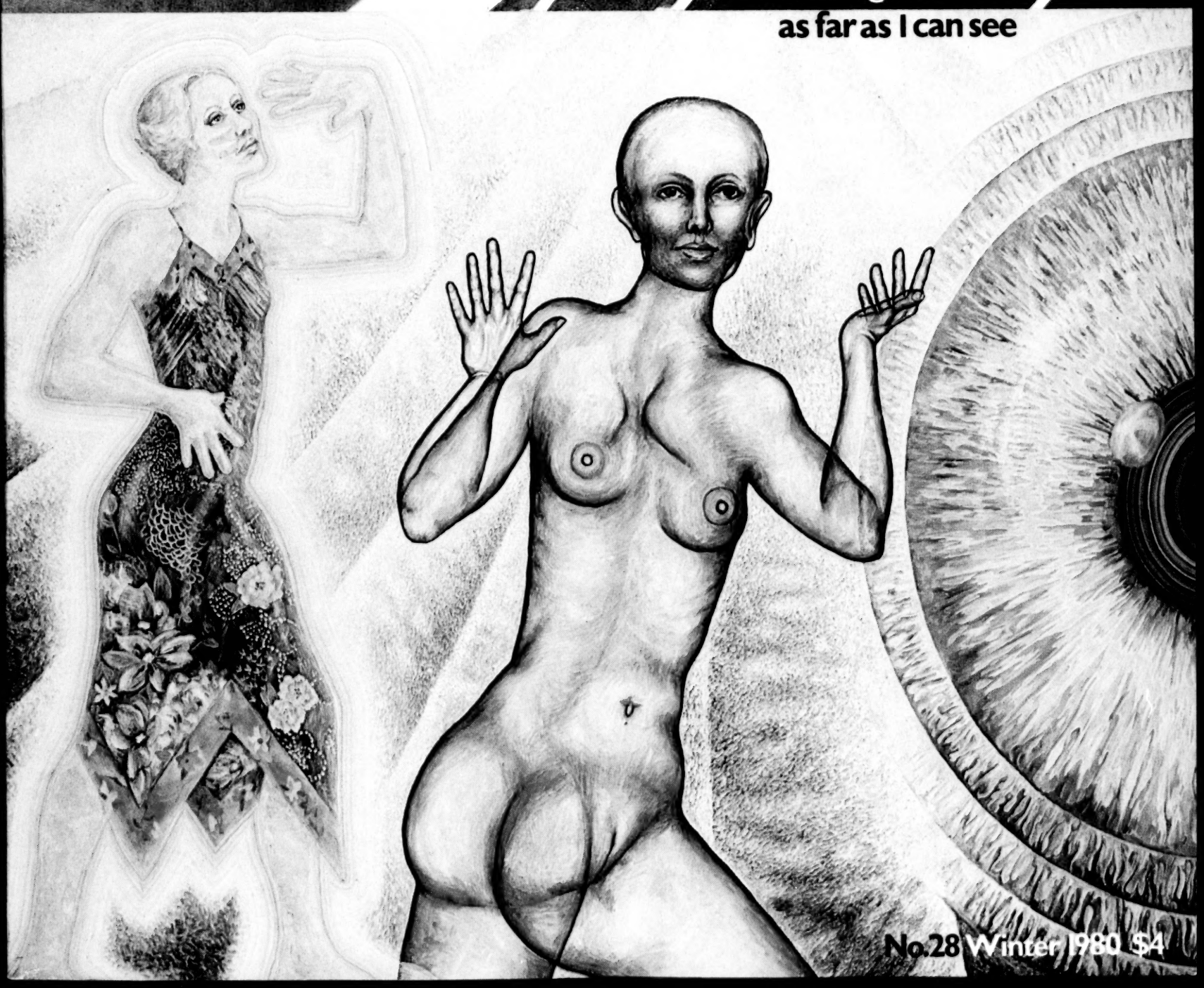
CoEVOLUTION Quarterly

Our neighborhood
as far as I can see



No. 28 Winter 1980 $4

PLANT LIBERATION

by Heathcote Williams

PHOTOGRAPH BY THOMAS C. GERUGHTY

Every tree in the forest knows what every other tree is thinking. The discovery of America was a conspiracy of Plant Consciousness. The trees in Spain wanted to discover what the trees in America were thinking, so they employed Christopher Columbus to build a ship made of wood, and when it made its return journey, they knew.

If you can understand trees, you can understand what's happening all over the world. It's quite unnecessary to chop them down, and pulp them, and mangle them, and then squirt squid juice all over them to understand anything.

Nature is God's Groupie.

Adam and Eve dug trees, Buddha dug trees. And Christ dug trees. In the End.

Mr. Cleve Backster, who has made a series of experiments with plants using the polygraph or lie detector, discovered that plants do not like orgasms. Orgasms freak them out, but they respond very, very favourably to foreplay.

I thought about this for some time, and it struck me that this might be the reason. Plants remember the Garden of Eden. They remember a time when everything that lived, which is everything, for everything has a presence . . . stones and rocks are alive . . . They are there to teach us silence and patience . . . We have killed them . . . we have ground them up to make concrete and cement on which we walk noisily and impatiently with our feet covered in dead flesh . . .

Plants remember a time when everything was interconnected in a holy synergy.

When there was continual and total maithuna orgasm. One day a freak ray hit paradise and something died. One cell in the circuitry of joy was killed, which gave rise to fear and then hysteria. Adam and Eve, thinking that the gravy train was spilled for ever, started fucking instead of loving, consuming instead of feeling. They squinched cosmic joy into a hormone bomb. *Le Petit Mort* as the French call it.

One minor way to return to that pristine paradisiac state might be to employ a method delineated in one of the Chinese pillow books. The couple remain together without moving for some considerable time and the woman brings the man to fulfilment by simply moving her vaginal muscles. Most women have been fucked so brutally and hysterically for such a long time that they have lost this capability.

The story of the Garden of Eden is the story of the first bring down. Perhaps they were brought down because they ate the fruit of the tree, before the tree had offered them its fruit. They raped the tree.

We are moving plants. Our feet and our toes are roots. Our heads are seeds. When we die, we are buried in the ground. The hairy seed husk disintegrates and our brains feed the soil, and our knowledge feeds the plants. Those who are envious of plants' wisdom try to insulate the human seed with a coffin. Those who cannot understand them, eat them.

Most people are too weak to absorb energy directly from the sun, so they enslave plants.

There is a yogini, which is a female yoga, in Rajasthan, who hasn't eaten for 57 years. She obtains essential mineral salts from the air, and she metabolises sunlight (and her arsehole's turned into a halo), and she's not skinny either. Or green.

Trees are X-rays of Utopian Gangsters. ■

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COVER

Seeing your neighborhood is part of what this issue is about. On the cover are two paintings by Kathleen O'Neill. The upper painting came out of Kathleen thinking about how many ways of seeing there are that she couldn't do on her own. It combines a hawk's eye view of the Bolinas Lagoon and the Pacific Ocean with a satellite and computer's view of Jupiter. The image in the bottom painting happened in her head one day after she'd been thinking about Genet's words "First I was iridescent, then I was transparent, finally I was absent." The two paintings combined seem to say something about seeing through yourself to the world around you. (Top painting: oil and acrylic, 50" x 62½" Bottom painting: oil, 47½" x 55")

The back cover, a water color (7" x 10") by David Wills, is of his brother's backyard in Camden Town, London, England. When his brother moved in, it was covered with rubble. Now it's a garden. There are more of David's watercolors starting on page 42. And more about seeing neighborhoods starting on page 23.

—Anne Herbert

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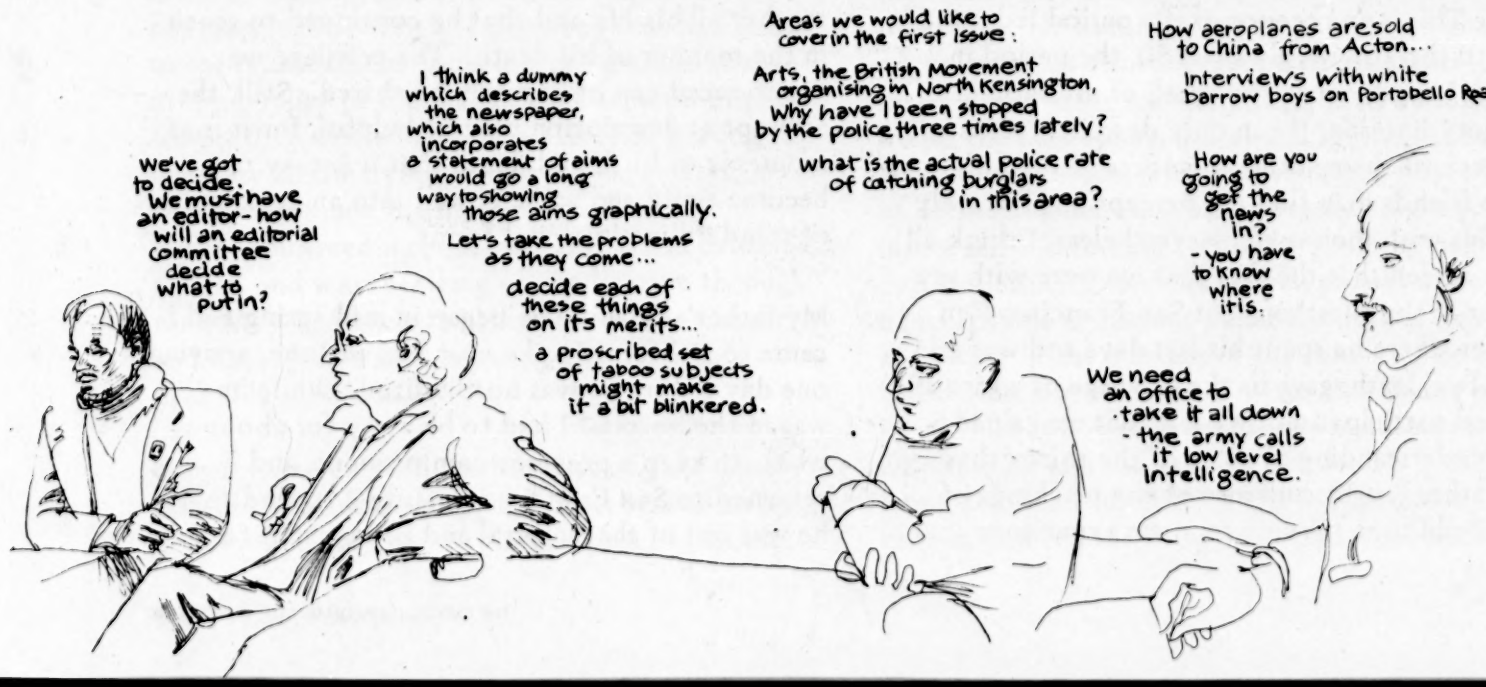

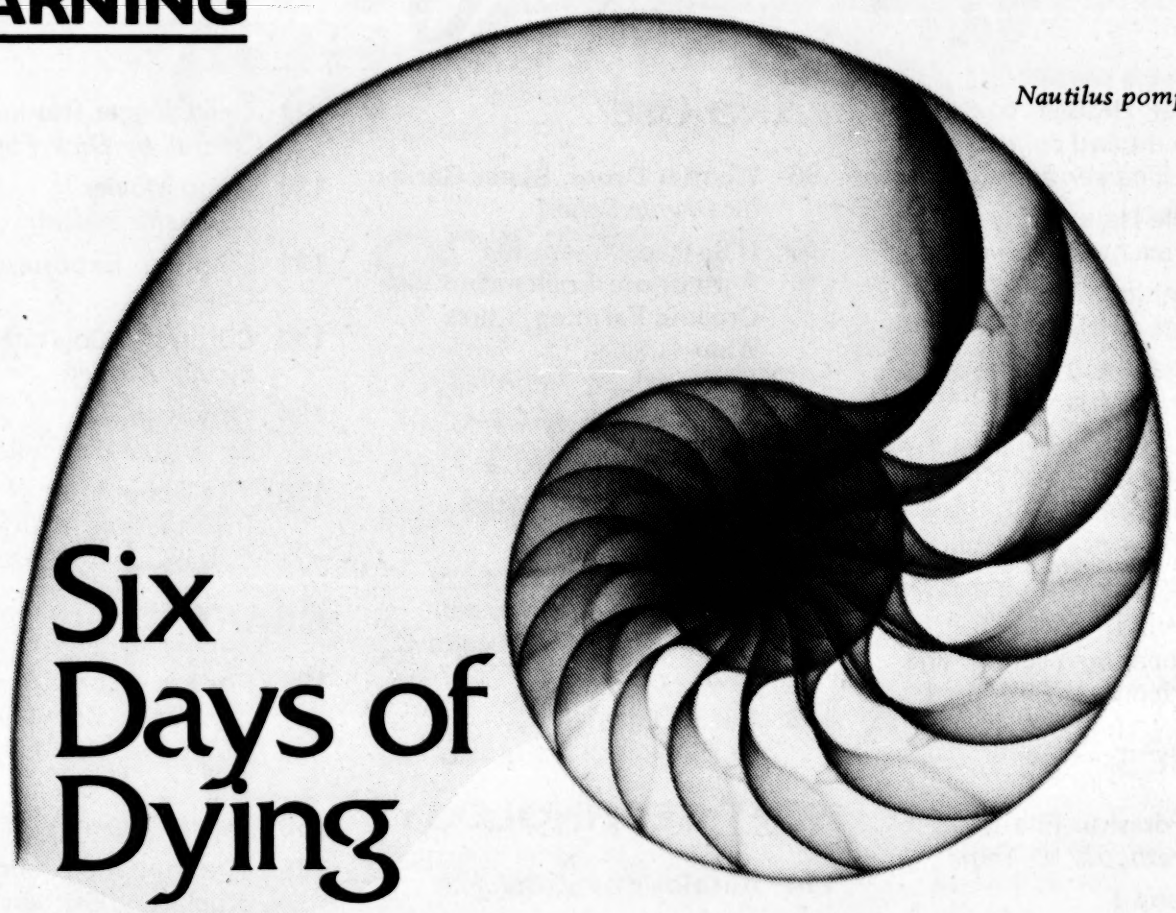

Nautilus pompilius

Six Days of Dying

by Mary Catherine Bateson

JUST AS THE INTIMACIES OF CHILDBIRTH and early mothering have gradually been restored, first with natural childbirth and rooming in and most recently with childbirth in the home, so there is a growing effort to meet death more intimately and simply. The logical end of this development is that people die at home or in an environment as close to home as possible. The depressions which used to afflict mothers after childbirth are probably related to interruptions in the early intimacy between mother and child which plays a biological role in the establishment of parental love and care. Similarly, the shadows of guilt and anger which so often complicate grief may also be related to interruptions in the process of caring, and they may be lightened by the experience of tending someone we love with our own hands, so that much that seems externally repellent and painful is transmuted by tenderness.

Death is surely more variable than birth. Where experiences are difficult to predict or compare, the specific is more useful than vague generalization. This is an account of the period from the 2nd to the 7th of July of 1980, the period in which I experienced the death of my father, Gregory Bateson. I can only describe events as I perceived them; other members of the family or close friends may find my perceptions bizarrely at odds with their own. Nevertheless, I think all of us agreed that the fact that we were with my father at the guesthouse of San Francisco Zen Center where he spent his last days and was laid out after death, gave us the privilege of a rare and blessed participation. We felt that we gained a new understanding of some of the things that my father taught, and also of the teachings of Zen Buddhism. Trying to make experience explicit in words is not typical of Zen, but it was something my father cared about. Lois Bateson, his wife, commented that Gregory had been a teacher all his life and that he continued to teach in the manner of his death. The privilege we experienced can only partly be shared. Still, the attempt at description may be helpful, for it is at moments of birth and death that it is easy to become timid and to be cowed into an acceptance of standard institutional forms.

My father's final illness began in mid-spring and I came to California to be near him in June, arriving one day before he was hospitalized. While he was in the hospital I had to be away for about a week, to keep a previous commitment, and I returned to San Francisco on July 2 to find that he was out of the hospital and being cared for at

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In 1978 Gregory nearly died of lung cancer. Part of his recovery was Catherine travelling from Iran to help with his book, Mind and Nature: A Necessary Unity.

Catherine Bateson, the only child of Gregory Bateson and Margaret Mead, is an anthropologist presently at Amherst College, Massachusetts. In Gregory Bateson's Steps to an Ecology of Mind *(1975, Ballantine) there is a collection of "metalogues," semi-fictional conversations between father and daughter inspired by real dialogues they had when Catherine was a child. Some other family members present in this account are: Gregory's wife Lois, whom he met while working on his Double Bind theory of schizophrenia and creativity at the VA Hospital in Palo Alto, California during the 1950s; Nora, Lois and Gregory's daughter, now 12; John, Gregory's son by his second marriage; and Eric, Lois's son by a prior marriage. In addition to Catherine's own considerable work, she has collaborated frequently with her father. She authored* Our Own Metaphor *(1972, Knopf) which is an account of a conference organized by Gregory; she helped with his most recent book,* Mind and Nature: A Necessary Unity *(1979, Bantam); and she is completing her part of co-authorship with Gregory on a forthcoming book,* Angels Fear. *Also she is literary executor for both her father and Margaret Mead. It is clear the metalogue never stopped.*

—Stewart Brand

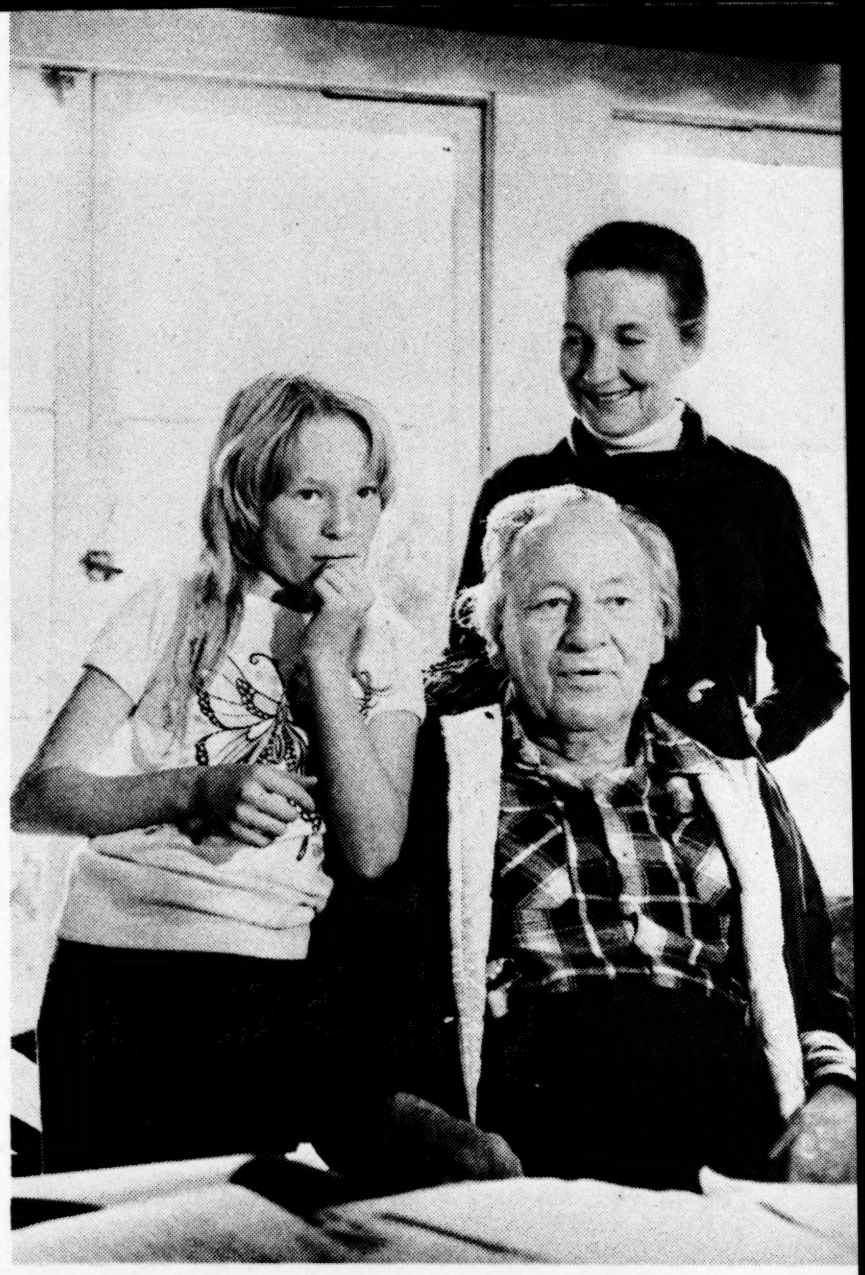
Zen Center where I too went to stay. Two days before I had left, we had been talking, with some sense of realism, about where he might be able to convalesce, but even as I departed that had come to seem unrealistic. Lois felt the gradual change in the quality of the nurses' care as, with implicit triage, they shifted from the effort of healing to courtesy to the dying. Towards the end of the week, Lois made the decision to discontinue intravenous feeding – he was eating and drinking a little, and was receiving no medication through the I.V. – and then to bring him to Zen Center and nurse him there, knowing that he would probably die there.

Gregory had entered the hospital of June 10th because of a respiratory crisis that proved to be pneumonia and an unexplained pain in his side. Everyone assumed that the pain was related to the lung cancer he had had in 1978 which was expected to be terminal and then went into remission. He himself felt that the pain might be a local nervous disorder related to his earlier surgery, and went back to a term used by his old friend the neurophysiologist and systems theorist, Warren McCulloch, who had described how a group of nerves, regenerating after surgery, might get into a self-reinforcing cycle of resonating pain, but McCulloch's term, *causalgia*, proved to be unacceptable in current parlance and was treated as fantasy in the context of the cancer. The pain had driven him to his bed in late May where pneumonia had followed in lungs long handicapped by emphysema and the cancer episode. He had been living at Esalen Institute in Big Sur since the cancer, and friends there came and went with

counsels spun from different epistemologies, the multiple holisms of an unfocussed new age. He had dutifully done a session of imaging and was told that perhaps indeed he did not want to live. He had by his bedside an array of megadoses of various vitamins and microdoses of homeopathic medicines, wheat grass juice available in any quantities he would accept it, and at the same time he was told that he was too preoccupied with the physical and should be concerned with the spiritual, this being available in various traditional and syncretic forms.

When we left Esalen, heading for San Francisco in a VW van with a supply of emergency oxygen, we had two possible destinations, either UC Hospital or Zen Center. I do not believe Gregory was making a choice between "holistic" and "establishment" medicine, but a choice between multiplicity and integrity. He maintained a profound scepticism towards both the premises of the medical profession and the Buddhist epistemology, but certainty is scarce and there is a kind of relief to be found in a system that expresses the disciplined working out of a set of premises, whatever these may be. Furthermore, he wanted to be in a place where he could have more information about what was happening and where his own curiosity would be allowed to play a role, his own vitality nurtured by knowledge rather than by hope.

When we arrived at UC Hospital and got the diagnosis of pneumonia, everyone concurred that pneumonia was something that establishment medicine knew how to handle and that it made sense to stay there. Gregory was deeply tired and in need of an impersonal, matter-of-fact environment, and for several days he wanted few visitors and as much new information about his condition as non-intrusive diagnostic procedures would provide. X-rays showed no growth or spread of cancer and provided no explanation for the pain. At that point, after working carefully on the details of a will, Gregory and his doctor decided that relief from pain was what he needed most, and he had several days of relatively frequent and large doses of morphine. When Lois demanded a recess in which he could be fully conscious and able to discuss other treatment possibilities after these days, he remained somewhat blurred and disoriented and the pain was a dull ache rather than an agonizing burning sensation. He was terribly weakened, partly by vomiting caused by some of his medication. He spoke of going home and came lurching out of the bed in the middle of the night, asking for scissors to cut the I.V. and oxygen tubes. Much of his talk was metaphorical and so discounted by nurses who made cheerful and soothing noises, but he remained very much himself, relating in clearly different ways to different people, compliant but skeptical. Our initial optimism in this period was a response to the decrease in pain and the improvement in pneumonia, but it was premised on a recovery of strength and will to live which did not occur.



Nora, Gregory, Lois

During the last week in the hospital, there was a recurrence of the pneumonia, necessitating another round of antibiotics, and finally an explanation of the pain, when an eruption around his side provided the identification of *Herpes zoster* (shingles). This form of herpes is a virus which attacks the nervous system, causing acute unilateral pain, especially in the elderly, and eventually a skin eruption. It is almost impossible to diagnose before the rash, and in Gregory's case the location of the pain on one side of his body was all too easy to connect with the cancer. No one dies of shingles, but the pain may continue indefinitely; it does seem reasonable to say that Gregory died by withdrawals from unexplained pain, and that the explanation came too late to save him.

The six days of the title are the three days from my return to the moment when his breathing ceased, approximately at noon on July 4, followed by the three days until his cremation. Thus, not all of the punctuation comes from the natural

process of death, but it serves to frame a period instead of focussing on a single moment. During those six days we were at San Francisco Zen Center, with most of the family and a few close friends sharing in the nursing and the Zen community providing practical help and a context of coherent tranquility.

On the morning of July 2, Gregory asked his son to kill him. The asking was not a fully conscious request for practical steps – he suggested getting a stick and hitting him over the head with it, as if by brutal overstatement to achieve the opposite of euphemism – but it was a demanding paternal honesty. When I arrived, Lois suggested that John and her son, Eric, and I meet with Michael, Gregory's friend and physician, hoping that we could accept as a group what she had already accepted in the decision to leave the hospital. Michael talked about the fact that there were various aggressive forms of treatment that could be taken to keep Gregory alive, and about his sense, having observed Gregory during the earlier crisis and in the intervening period, that Gregory had been turning toward death and that such interventions would be inappropriate and ultimately futile. All of us felt that mentally at least Gregory's withdrawal was probably irreversible, whatever the mechanism involved, and that his wishes should be respected as far as they could be. What this meant was giving up the pressure on him to suffer those things that might prolong his life – sitting up for a few minutes, respiratory therapy or an oxygen tube at his nostrils, another spoonful of custard, another sip of broth – while making each of these available if in any way he seemed to want them, or doing anything else we could to make him more comfortable. The more deeply one rejects the separation of mind and body, the more difficult it is to treat the processes of disease and death as mechanical and alien to the self. Even as one gives up the image of an external enemy, of death personified as the Grim Reaper or reified in the name of a killing disease, the problem which lives in most people's unconscious becomes conscious, the feeling that the death of those we love is a betrayal. We tend to feel that someone who is dying has an implicit obligation to stay alive: to accept treatment, to make an unflagging effort, and indeed to think thoughts that would support the effort at life rather than the drift towards death, not because to do so is comforting but because it may be a real factor in what happens.

We went back into the room where a hospital bed had been brought for Gregory, and we shared some sherry and stilton cheese. Gregory accepted a mouthful of each. We sat in a half-circle open towards the bed, and a student and friend of Gregory's, Steve, played the violin, while Lois accompanied him with chords on the tambur and those who could harmonized their voices, weaving a wandering chant in the darkening room for what seemed a very long time. During the music Gregory, half dozing, brushed the tube that was supplying oxygen away from his nostrils, and each of us, I suppose, struggled with the impulse to get up and replace it. Some of us were crying quietly. The music was gentle mourning, uniting the various terms to which each of us had come in the acceptance of his death into a single covenant. When the music ended we sat for a while, listening to his labored, drowning breathing. After a time, lights were lit, Gregory stirred himself to eat and drink a little more, a few mouthfuls, the night watches were shared out, and one of the Zen students entering the room restored the oxygen tube. After that it was put back or offered several times, but eventually each time he rejected it.

Within the rhythm of our day, one of a small group was always with him: Lois, or Kathleen, a friend and nurse who had come with the family from Esalen, or I, or John and Eric, or Robert, the Zen priest who manages the guest house. Each evening different Zen students, some of them friends and others unnamed, would come and sit in the room also, erect and immobile unless they were needed, for Baker Roshi, in touch every day by telephone from across the country, wanted the students to approach the suchness of dying and to give their quiet support to Gregory and to us. He instructed them to deepen their empathy by breathing in unison with Gregory, supporting and sharing. Those of us staying in the house slept at different hours and slipped out briefly to join the meditations in the Zendo or to chant or join in the Eucharist at a convent around the corner. Others came and went. We felt that for Gregory the process of dying proceeded gradually but without even a clear distinction between sleeping and waking.

On July 3 Gregory spoke occasionally, making gestures of affection and recognition, but much of what he said was blurred and unintelligible. He also spoke to others he seemed to see around the bed and once or twice asked whether a particular person was indeed present or only a dream. It was often necessary to move his big ungainly body for he had become almost completely incontinent. This more than anything was reminiscent of the care of an infant, but moving him to clean or change pads or to guard against bed sores became especially difficult on that day because although he was not able to help at all, there was a sort of recalcitrance in his body against these indignities. He gave an impression of deep concentration.

Jerry Brown came in on the evening of the 3rd and Gregory recognized him and stretched out his hand to greet him, calling him by name. As Jerry left and we settled down for the night, Gregory's labored breathing had slowed to the point where

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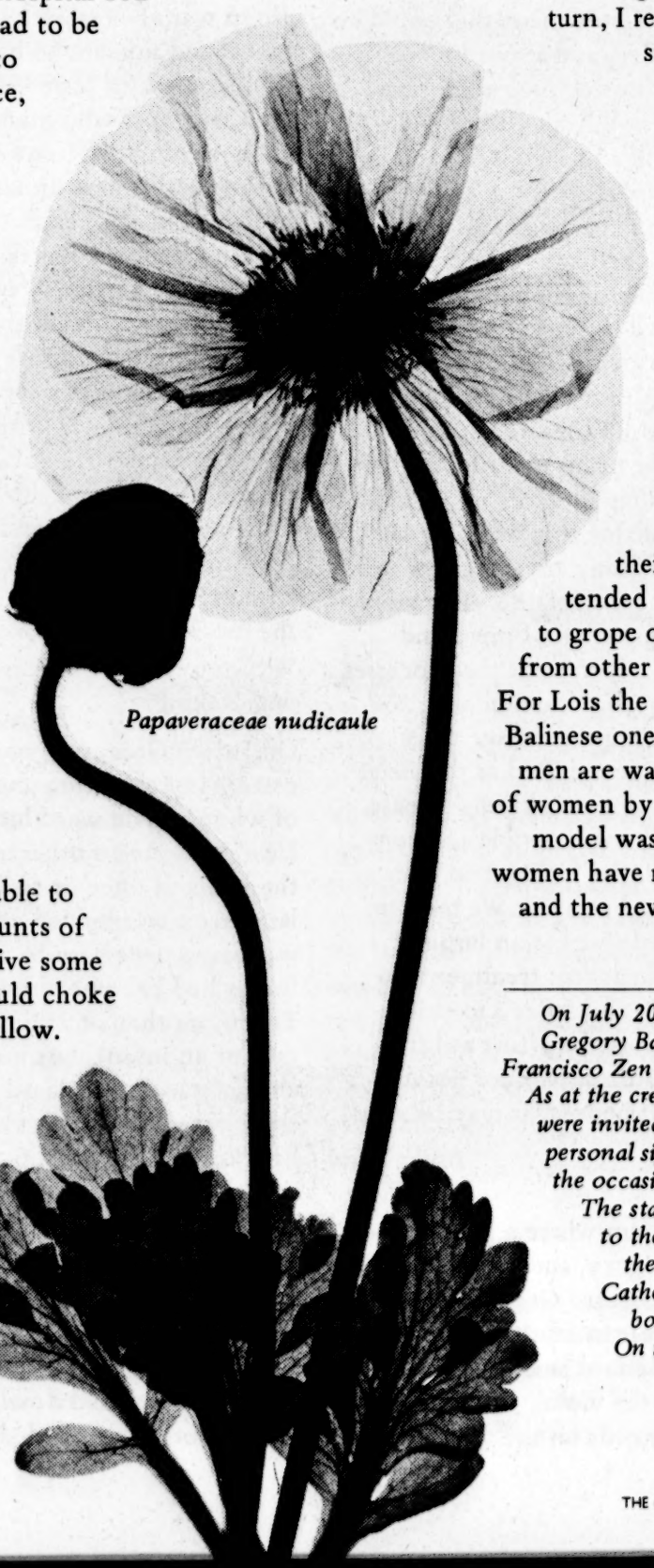
sometimes the interval between breaths left room for a momentary doubt of whether another breath would follow. We shared the certainty that less than a day remained. Gregory was dying as people die in books, gradually sinking towards death in a self-reinforcing process. Intravenous feeding and continuous oxygen could drag that process out, interfering with the choice of mind and body not to sustain life, and another counter attack might have been possible on the pneumonia which we could hear in Gregory's breathing. But pneumonia has long been called the "old man's friend." I never thought of my father as an old man until he was dying.

During the late night and the morning hours of the 4th of July, each of us had time alone with him. He still smiled and responded to a handclasp, or would draw a hand to his lips. Touching seemed important, and the hospital bed enforced an isolation that had to be bridged. I found I wanted to give him the sound of a voice, so I read aloud the final chapters of the Book of Job. I held up a flower from one of the vases, not as something sweet and pretty but as a symbol of the order of truth to which he had been most true, the grace and intricacy of mental phenomena underlying the patterns of the biological world, and wondered whether a flower could still evoke that allegiance as, for someone else, a lifted cross could evoke a whole life lived in the Christian context. He would have been able to call the flower by name.

By mid-morning he was unable to drink, and we put tiny amounts of water in his dry mouth to give some moisture, afraid that he would choke on any more, unable to swallow. His breathing was laborious and slow. Lois noticed a pattern of blotches on his chest which at first we thought was a further eruption of the *Herpes* and then realized was a result of a change in circulation.



Papaveraceae nudicaule

A short time later, Roger, a friend from Esalen, saw the pupils of his eyes dilate as his mind encountered the dark. So we gathered around the bed, some six of us who had been caring for him most closely, hardly breathing ourselves as we waited from breath to breath, the time stretching, the time stretching beyond the possible, and yet again and again followed by a gasping reflexive inhalation, and then again the lengthening pause. I kept praying that he would be free from each next compulsive effort, let go, rest, and when after a time no further breath followed, we still stood, slowly relaxing with the faintest sighs, barely able to return to a flow of time not shaped by that breathing. Lois reached forward, after her office, and gently closed his eyes.

We did not at that time pause to mourn but slowly found our way into the expression of continuing care. After Lois, in my turn, I reached out and began to straighten his arms, then folding his hands. Someone lowered the bed to the flat and dropped the sides. I thought briefly of those cultures in which the bodies of loved ones are transmuted at the moment of death into something impure, polluting those who touch them. During my lifetime few Americans have tended their dead, just as few have tended their dying, and we had to grope our way, following clues from other times or other cultures. For Lois the available model was the Balinese one, in which the bodies of men are washed by men, and those of women by women, but for me the model was the Western one where women have received the newly born and the newly dead into their care.

continued

On July 20, 1980, a funeral service for Gregory Bateson took place at the San Francisco Zen Center's Green Gulch farm. As at the crematorium, family members were invited to place objects of mutual personal significance near the focus of the occasion, in this case on the altar. The stack of papers just below and to the left of Gregory's picture is the manuscript of Gregory and Catherine Bateson's forthcoming book on religion, Angels Fear. *On the stack is a rose from wife Lois and a tiny otter from daughter Nora.* →

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At the Zen Center funeral on July 20, family members and any of the 200 other mourners present were invited to speak to Gregory. A lively conversation resulted, sometimes funny, sometimes quite moving, always warm and personal and a release. Here Catherine says her piece. Left to right: Lois, Nora, Catherine, Eric.

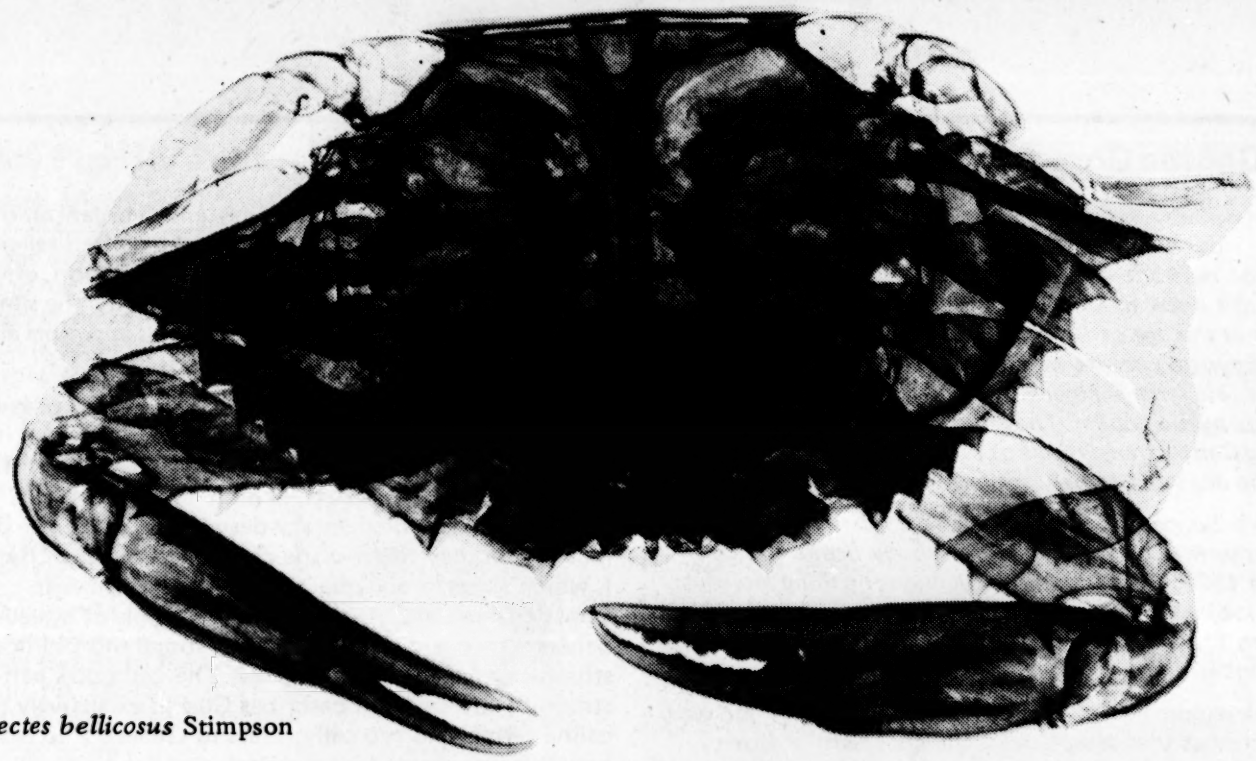
In the end we all worked together, removing the soiled pads, cleaning away the final traces of excrement, lifting and turning and washing each limb, shifting from side to side this beloved body from which all tension and recalcitrance were drained so that he suffered our care with a curious innocence. The blotches on his skin had faded.

Roshi had instructed that all traces of the sick room be removed, and Gregory was lifted and carried to the double bed at the other side of the room, dressed in a bathrobe and covered with the sheet and spread. He was still a little too long for any bed. With half a dozen Zen folk joining in, the hospital bed and table were dismantled and carried out, the linens and the clothes and basin we had used to wash him were removed. Consulting each other in muted voices, we bound a kerchief around his chin, experimenting with the angle until we were able to close his mouth, collecting and composing ourselves even as Gregory's body and the room were made serene in composure. As the work was completed, Robert surveyed the scene and then went and straightened the folds of the bed cover so they fell in sculptured order to the floor. Then he set up a small altar, a table with an incense burner at the foot of the bed, and said that now he would show us how to offer incense to Gregory: bow (the bow whose name is "asking"), touch a few grains of incense to the third eye in the center of the forehead, place them on the burning charcoal, add a few more grains, bow. It seemed to me well to perform an act which was both alien and completely formal, combining affection and courtesy with total estrangement. From that time, incense burned constantly in the room, and two or more of the Zen folk sat and watched. Gregory was not a Buddhist, but Zen mindfulness and decorum were for him an affirmation of the intricate order of mind. We sat for awhile, and soon I went and slept in another room of the guest house.

When I woke up and returned to my father's bedside it was late afternoon. His body was cold now when I touched his hands, and the tracery of red blood vessels in his cheeks drained of color. Someone had removed the kerchief and combed his hair. As his body had settled gradually into the rigor of death, his face assumed a gentle, just slightly mischievous smile, and with the wisdom of mothers who refuse to believe that their infants' first smiles are caused by gas, we felt we could recognize the carrying over of irony into peace. As he had weakened and had been able to express less and less, the final attribute distilled from the others was sweetness, so this was the natural form into which his features settled, unfalsified by cosmetics and the skillful artifices of morticians who teach the dead to lie to the living about what they meet at journey's end.

Downstairs we drank sherry and ate the stilton cheese that Gregory loved with other members of the immediate circle who had not been present at noon, in undefined shared sacrament. Through the next two nights and days, a new pattern developed an echo of the rhythm of Gregory's last days. The Zen students came and went, keeping their vigil and we also took turns being by Gregory's side, watching the continuing changes as death increasingly and more deeply asserted itself. The window was kept open to the cool San Francisco weather, and in the morning he seemed to me a thousand miles more distant, his skin pale as wax, his hand still and very cold. As a child I believed that the dead became such strangers immediately, not realizing that there is a maturation in death. Having offered incense once, I found I preferred to enter the room informally and sit close by his side, touching his hand in greeting and farewell.

Our Buddhist guides told of their belief that the soul lingers near the body for up to three days before it finally departs, so that cremation should not occur for three days and the body should be attended, especially during the first two days, and



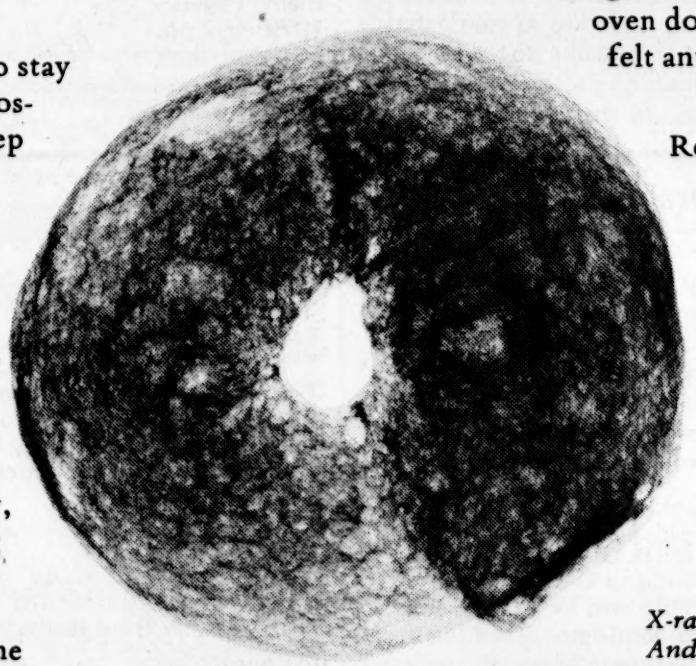
Callinectes bellicosus Stimpson

they encouraged us and other visitors to read out loud or to address Gregory. At the same time, all of us had limited experience and we were shy of the physical complications of keeping a body for too long a period of time, so the decision was made to send the body to the crematorium on the 6th. That morning the Zen students withdrew, leaving the watch with Gregory to the family. My sister Nora and I went in together, sitting for a time on either side of the big bed as she explored the quality of death, feeling his hands, asking about the mechanism of rigor, wondering at the absence of the familiar bulk. Reb, one of the Zen teachers, spoke of him as being like a beached whale, but at the end he was strangely diminished. Then the Neptune Society van came, and Gregory was wrapped in a sheet that someone had carefully ironed that morning, strapped to a stretcher, and finally his face was covered with a dark green wrapper. The Zen Guest House is an old and gracious building, with stairs wide enough for one to make a final departure on a stretcher or in a coffin, and probably Gregory was not the first person to leave it so.

Baker Roshi's advice was to stay as close to the process as possible, following Gregory step by step through the concrete reality, so on the 7th the family went to the crematorium with a small group of Zen monks who had also been close to to Gregory. We took various things to send with him into the fire: a volume of Blake's poetry, flowers and sweet smelling herbs, individual roses. We gave him a small crab that Eric and John had gone out with a flashlight to capture the night before, in memory of the way he had taught each of us to study tide pools and of the way he had taken a crab with him year after year to his opening classes at the San Francisco Art Institute, to open his students' eyes to the "fearful symmetries" of organic life. Nora brought a bagel because he had once quipped at Esalen that the hole in a bagel would be reincarnated in a doughnut. There were incense and the ashes of incense from Zen Center.

We went into the backstage of the crematorium where the great ovens are, a disheveled and unkempt region of noisy machinery. His body was on a plank on a wheeled stretcher, and when the covering was turned back we could see that rigor had passed and his mouth had fallen open, his head fallen sideways. His body seemed gray and abandoned as if finally life had fully receded. We piled our gifts within the shroud and offered incense, and as the Zen folk chanted in Sanskrit we each whispered whatever other prayers we felt the moment needed. Reb, the Zen priest officiating, whispered in his ear before the oven door was closed. None of us felt any longer the need or desire to touch him.

Reb showed Lois the button to press to start the oven, as in another age she would have set the flame to a pyre of fragrant woods. And then he suggested that we go outside to where the smoke of the crematorium was escaping into the bright sky. ■



X-ray photographs by Andre Bruwer, M.D.

The Gnostic Gospels

Back in Sunday School days did you ever stop and wonder how much of the rap was for real? I never did, I was too dumb to ask questions, but if someone had added this book to my mind I could have become a skeptic at the age of 9. It's a story that picks up in 1945 in the Egyptian desert with the discovery by an Arab peasant of a large earthenware jar filled with leather-bound papyrus books. They turned out to be 1500 year old Coptic translations of documents written shortly after the death of Jesus.

The texts bogged down in politics, lawsuits and academic egotrips until a UNESCO project finally broke things loose in 1977. What emerged then was nothing less than a close look at the roots of Western religion, a story that had been historically labeled the Gnostic Heresy and swept under the rug by the orthodox church.

"It is the winners who write history — their way. No wonder then, that the viewpoint of the successful majority has dominated all traditional accounts of the origin of Christianity. Ecclesiastical Christians first defined the terms (naming themselves 'orthodox' and their opponents 'heretics'); then they proceeded to demonstrate — at least to their own satisfaction — that their triumph was historically inevitable, or, in religious terms, 'guided by the Holy Spirit.'

"But the discoveries at Nag Hammadi reopen fundamental questions. They suggest that Christianity might have developed in very different directions — or that Christianity as we know it might not have survived at all."

The Orthodox viewpoint is familiar to us, for it survived, solidified and became the Catholic Church. The Gnostics didn't survive, and what makes this book so interesting is the look we're given at the practices of a large group of early Christians, whose beliefs would be quite familiar to many people today. A spiritual approach that emphasized the inner voice as opposed to Following the Rules was one aspect of their thinking, as was sexual equality and some very basic participatory democracy.

"Zostrianos relates that, first, he had to remove from himself physical desires, probably by ascetic practices. Second, he had to reduce 'chaos in mind,' stilling his mind with meditation. Then, he says, 'after I set myself straight, I saw the perfect child' — a vision of the divine presence.

"Obviously, such a program of discipline, like the higher levels of Buddhist teaching, would appeal only to a few. Although major themes of gnostic teaching, such as the discovery of the divine within, appealed to so many that they constituted a major threat to catholic doctrine, the religious perspectives and methods of gnosticism did not lend themselves to mass religion. In this respect, it was no match for the highly effective system of organization of the catholic church, which expressed a unified religious perspective based on the New Testament canon, offered a creed requiring the initiate to confess only the simplest essentials of faith, and celebrated rituals as simple and profound as baptism and the eucharist.

"We can see, then, two very different patterns of sexual attitudes emerging in orthodox and gnostic circles. In simplest form, many gnostic Christians correlate their description of God in both masculine and feminine terms with a complementary description of human nature. Most often they refer to the creation account of Genesis I, which suggests an equal or androgynous human creation. Gnostic Christians often take the principle of equality between men and women into the social and political structures of their communities. The orthodox pattern is strikingly different: it describes God in exclusively masculine terms, and typically refers to Genesis 2 to describe how Eve was created from Adam, and for his fulfillment. Like the gnostic view, this translates into social practice: by the late second century, the orthodox community came to accept the domination of men over women as the divinely ordained order, not only for social and family life, but also for the Christian churches.

"When they met, all the members first participated in drawing lots. Whoever received a certain lot apparently was designated to take the role of *priest*; another was to offer the sacrament, as *bishop*; another would read the Scriptures for worship, and others would address the group as a *prophet*, offering extemporaneous spiritual instruction. The next time the group met, they would throw lots again so that the persons taking each role changed continually. All initiates, men and women alike, participated equally in the drawing; anyone might be selected to serve as *priest, bishop,* or *prophet.*"

But what the Orthodox had that the Gnostics didn't was what counted most in the long run — organization. While the Gnostics were busy getting holy the Orthodox movement was busy laying down a cement foundation, and that's what endured. It also guaranteed a rigid hierarchy that, for better or for worse, was going to hold onto power for as long as there was a subscriber to the performance.

So the winners wrote the history, but here's a few interesting chapters from the team that lost. —*Dick Fugett*

The Gnostic Gospels
Elaine Pagels
1979; 182 pp.

$2.95 postpaid from:
Random House
400 Hahn Road
Westminster, MD 21157
or Whole Earth
Household Store

A World Treasury of Oral Poetry

Words good enough to say out loud from all kinds of people — Gond, Mongol, Malay, Somali, Zulu, Yoruba, Irish, Pueblo, Eskimo, Hawaiian, Australian aborigines, English, and American chants, prayers, protest songs and daily life observations. Adults and children who think they don't like poetry may just not like poetry written down by educated English speakers in the last 500 years and this book could change some minds and open some ears. —*Anne Herbert*

A World Treasury of Oral Poetry
Ruth Finnegan, Editor
1978; 548 pp.

$16.50 postpaid from:
Indiana University Press
10th and Morton Streets
Bloomington, IN 47401
or Whole Earth
Household Store

•

Our earth mother

A Zuni prayer

That our earth mother may wrap herself
In a fourfold robe of white meal;
That she may be covered with frost flowers;
That yonder on all the mossy mountains,
The forests may huddle together with the cold;
That their arms may be broken by the snow,
In order that the land may be thus,
I have made my prayer sticks into living beings.

•

Solitary song (Eskimo)

Only the air-spirits know
What lies beyond the hills,
Yet I urge my team farther on
Drive on and on,
On and on!

Higglety Pigglety Pop!
or There Must Be More to Life

Jennie had everything but it wasn't enough. She gives it all up and has adventures and deprivations and ends up with everything again, but different and more entertaining. My favorite book about setting a brush fire to your life and waiting for new growth. I never have an identity crisis without it.
—Anne Herbert

Higglety Pigglety Pop!
(or There Must Be
More to Life)
Maurice Sendak
1967; 69 pp.
$3.95 postpaid from:
Harper and Row
Keystone Industrial Park
Scranton, PA 18512
or Whole Earth
Household Store

●

Once Jennie had everything. She slept on a round pillow upstairs and a square pillow downstairs. She had her own comb and brush, two different bottles of pills, eyedrops, eardrops, a thermometer, and for cold weather a red wool sweater. There were two windows for her to look out of and two bowls to eat from. She even had a master who loved her.

But Jennie didn't care. In the middle of the night she packed everything in a black leather bag with gold buckles and looked out of her favorite window for the last time.

"You have everything," said the potted plant that happened to be looking out the same window.

Jennie nibbled a leaf.

"You have two windows," said the plant. "I have only one."

Jennie sighed and bit off another leaf. The plant continued. "Two pillows, two bowls, a red wool sweater, eyedrops, eardrops, two different bottles of pills, a thermometer, and he even loves you."

"That is true," said Jennie, chewing more leaves.

"You have everything," repeated the plant.

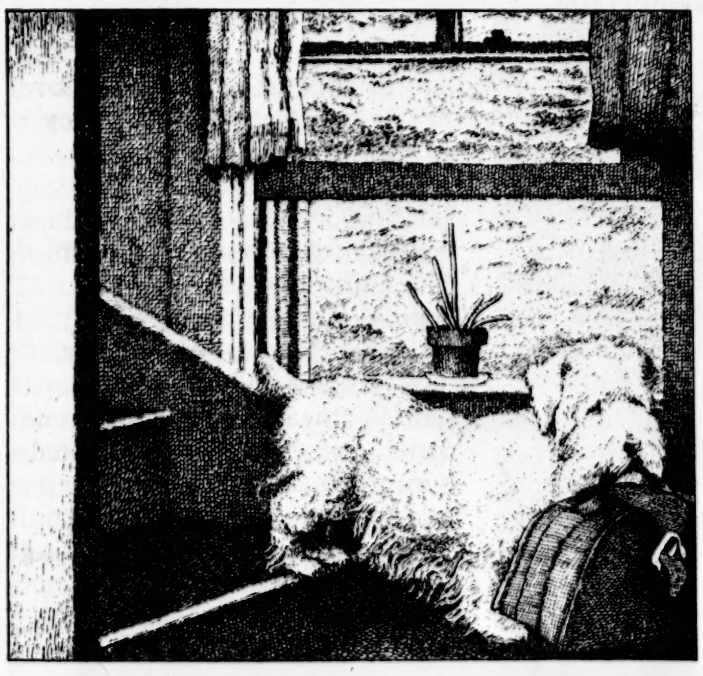
Jennie only nodded, her mouth full of leaves.

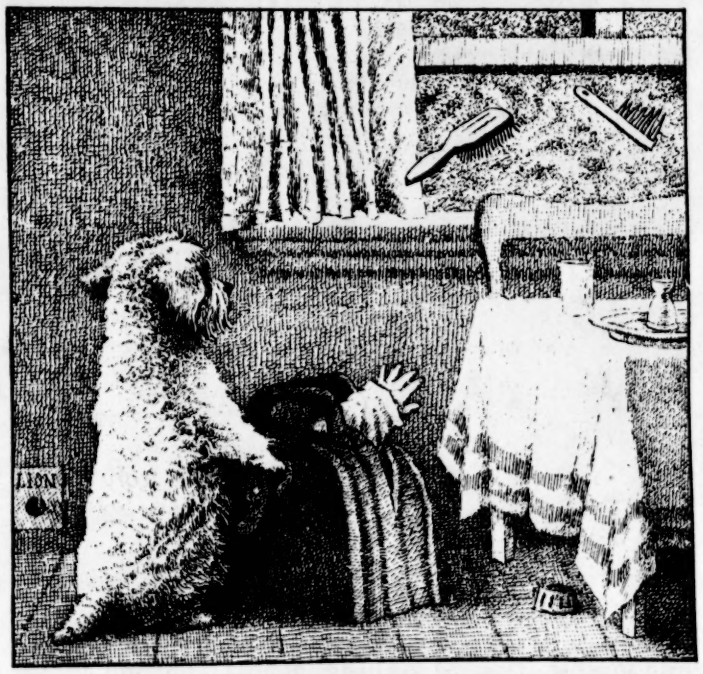
"Then why are you leaving?"

"Because," said Jennie, snapping off the stem and blossom, "I am discontented. I want something I do not have. There must be more to life than having everything!"

The plant had nothing left to say.

It had nothing left to say it with.





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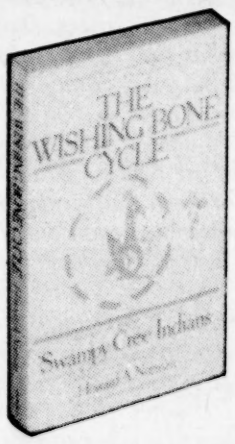
Jennie scooped Baby up, dropped her into the black leather bag with gold buckles, and sat down to think. Baby was kicking and punching and yowling inside the bag. Jennie heard her bowls smash, the thermometer snap, and the pillows rip. She chewed her paw, scratched her ear, and thought some more.

Baby's hand reached out of the bag, and the comb and brush went flying out the window.

The Wishing Bone Cycle

These are narrative poems from the Swampy Cree Indians, who live mostly in Canada. The poems are part explanation, part wishing, part bragging. Each one tells a story — how someone got their personal (non-Christian) name, something the teller saw, something the teller would like to see, sometimes just a funny made-up thought. The last poem in the book is a long "walking" story about creation. They are all told with a simplicity which evokes sharp pictures in my mind, like good haikus often do.
—Evelyn Eldridge-Diaz

The Wishing
Bone Cycle
(Narrative poems from the
the Swampy Cree Indians)
Howard A. Norman,
Translator
1976; 180 pp.
$9.95 postpaid from:
Stonehill Publishing Company
Farrar, Strauss and Giroux
19 Union Square West
New York, NY 10003



●

I never saw Wolverine
but I knew of his cleverness.
I wanted to meet him,
tricky one, clever one.

But every one said,
"He'll never come and talk with you."

I tried to figure out
a way.

So, I started saying bad things
about him, rotten things,
all lies.
I said, "Wolverine shits out whole hills."
The next day my house was covered.

Then I said, "Wolverine sneaks up on people."
When I got home my wife was gone.

Then I shut up
because everything I said
about him turned true.

THE LOG FROM THE SEA OF CORTEZ, 1951

He wears a beard and his face is half Christ and half satyr and his face tells the truth. It is said that he has helped many a girl out of one trouble and into another. Doc has the hands of a brain surgeon and a cool warm mind. Doc tips his hat to dogs as he drives by and the dogs look up and smile at him. He can kill anything for need but he could not even hurt a feeling for pleasure. —John Steinbeck
Cannery Row

Ed Ricketts: "From the Tidepool to the Stars"

by David Burnor

If only everything could be cleancut, the distinctions between the related species definite and unvarying, how lovely! That they aren't may easily drive you to distraction. Or to understanding the fundamental unity of all animal life . . .
–E.F. Ricketts

EDWARD F. RICKETTS, the visionary marine biologist, naturalist and conservationist of Monterey, California, was the model for one of John Steinbeck's most beloved characters. He was the real-life "Doc," the softhearted proprietor of a biological supply house amid "the poem, the stink, and the grating noise" of **Cannery Row**. Friend and benefactor to the drunks and whores and assorted low-life of the waterfront, Doc was also a dedicated professional biologist, the first ever to be portrayed in American fiction. Steinbeck's lyrical descriptions of the animals of the Great Tide Pool introduced a generation of readers to marine biology and the wonders of seashore life. However, he only touched the surface of Ricketts' complex personality and the holistic insight that made him one of the pioneers of modern ecological thinking.

Ed Ricketts was the author of **Between Pacific Tides**, the most innovative guide book ever written about the marine fauna of the Pacific rim of North America. The catalog of species he compiled for **Sea of Cortez** was one of the first comprehensive studies made of the distribution of intertidal invertebrates in the Gulf of California. His attempt to discover the factors behind the "disappearance" of the sardine from the coastal waters off Monterey, while not successful in saving the fishery, demonstrated an early awareness of the perils of unsound resource management.

He also made an important contribution to contemporary American literature. His association and exchange of ideas with Steinbeck was a continuing source of inspiration for the novelist during his most productive years. Richard Astro, in his study **Steinbeck and Ricketts: The Shaping of a Novelist**, states that "no analysis of Steinbeck's world view . . . can proceed without a careful study of the life, work, and ideas of this remarkable human being who was Steinbeck's closest personal and intellectual companion for nearly two decades." The key to that analysis, as well as to Ricketts' role as one of the spiritual forebears of holistic ecology, can now be found in **The Outer Shores**, edited by Joel W. Hedgpeth. Making available Ricketts' previously unpublished scientific papers, philosophical essays, correspondence, and a wealth of personal reminiscence, Hedgpeth presents an intriguing portrait of a man ahead of his time, whose driving force in life was an "urge to bring Bach and Zen together in the Great Tidepool."

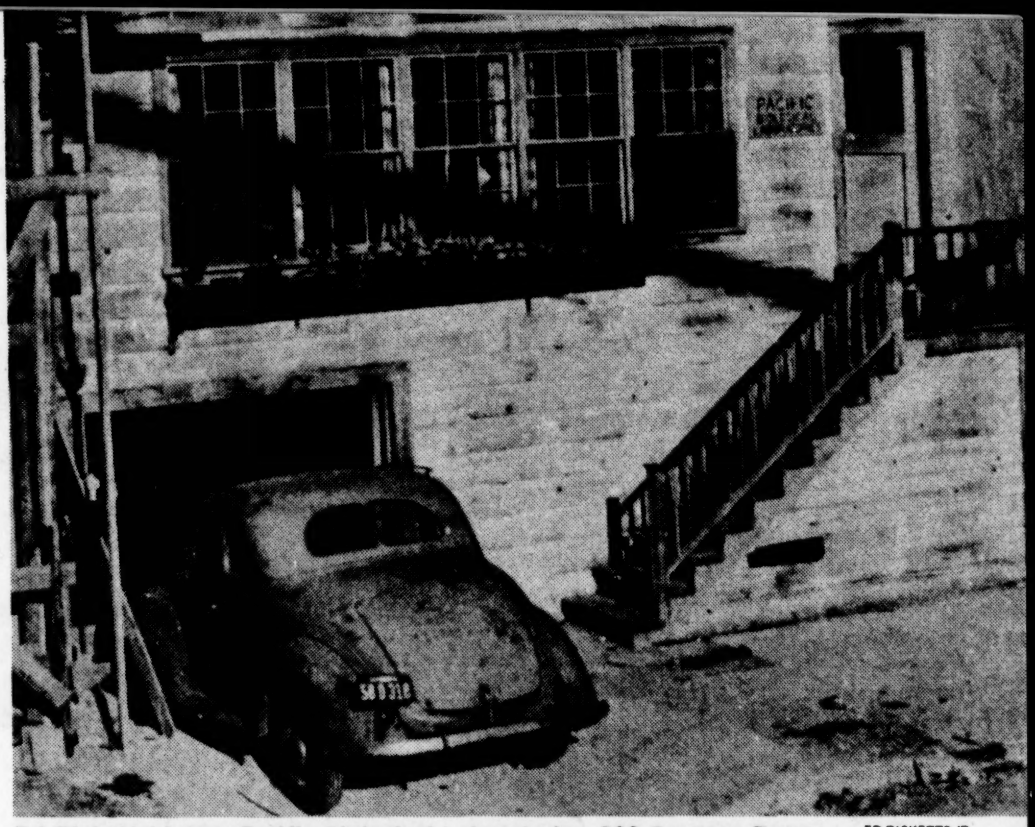
David Burnor, whose father was in the Army, has lived in Tokyo; Montreal; Washington, D.C.; Nancy France; Fort Huachuca and Tucson, Arizona; Los Angeles; Ludwigsburg and Kaiserslautern, West Germany; New York City; and San Francisco. Somewhere in there, David got skilled at finding out what is good in his neighborhood of the moment. When he lived in Los Angeles, he learned about the glories of hanging out at the beach. When he moved to Northern California, he found out the water was too cold to swim in, but there were lots of interesting things to see in the tidepools beside the ocean. Looking at tidepools led to borrowing a copy of Ed Ricketts' ***Between Pacific Tides*** *to find out what he was seeing, and that led to reading* ***Sea of Cortez*** *by Ricketts and John Steinbeck and* ***Cannery Row*** *by Steinbeck to find out more about Ricketts, the definitive tidepool lover.*

David goes out to look at tidepools at least a dozen times a year. He likes to take new people with him to show them how to look beyond the obvious starfish and anemone to the myriad forms of tiny life in every pool. Between tidepool trips, David does subscription work for the ***CQ****.*

–Anne Herbert

"It has always seemed strange to me," said Doc. "The things we admire in men, kindness and generosity, openness, honesty, understanding and feeling are the concomitants of failure in our system. And those traits we detest, sharpness, greed, acquisitiveness, meanness, egotism and self interest are the traits of success. And while men admire the quality of the first they love the produce of the second."

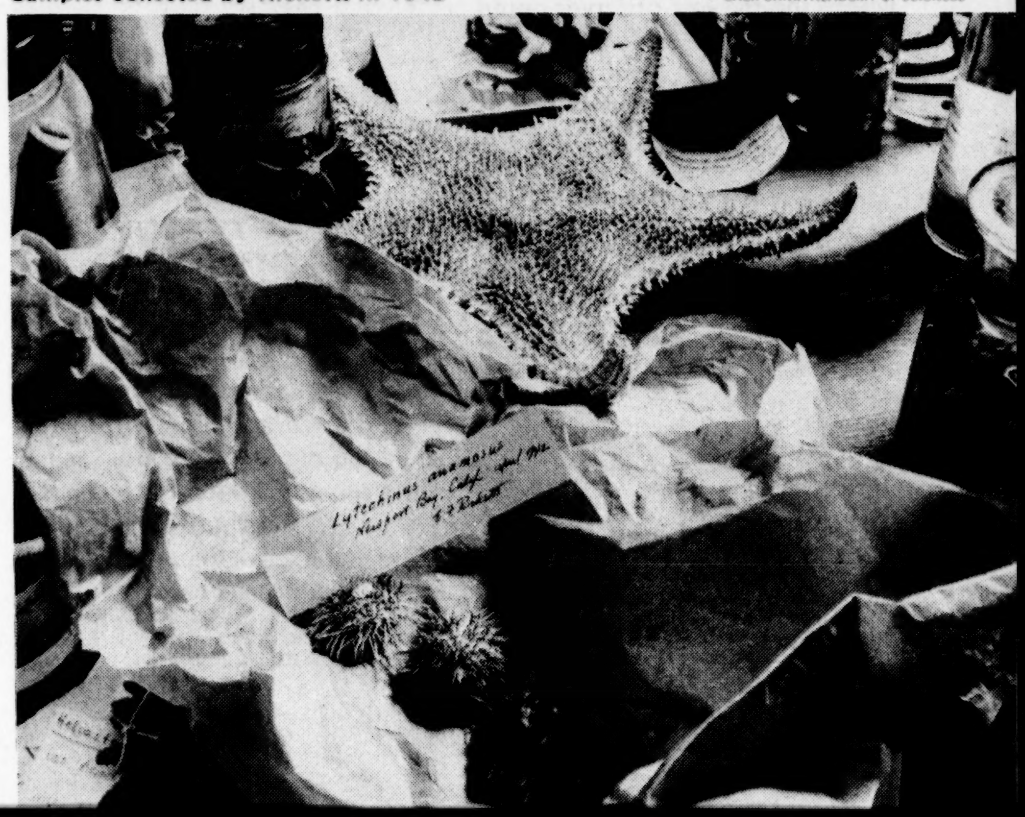
–John Steinbeck
Cannery Row



Ed Ricketts' home, Pacific Biological Laboratories, 800 Cannery Row ED RICKETTS JR.

Ricketts collecting in a tidepool in Carmel, California JACK CALVIN

Samples collected by Ricketts in 1942 CALIFORNIA ACADEMY OF SCIENCES

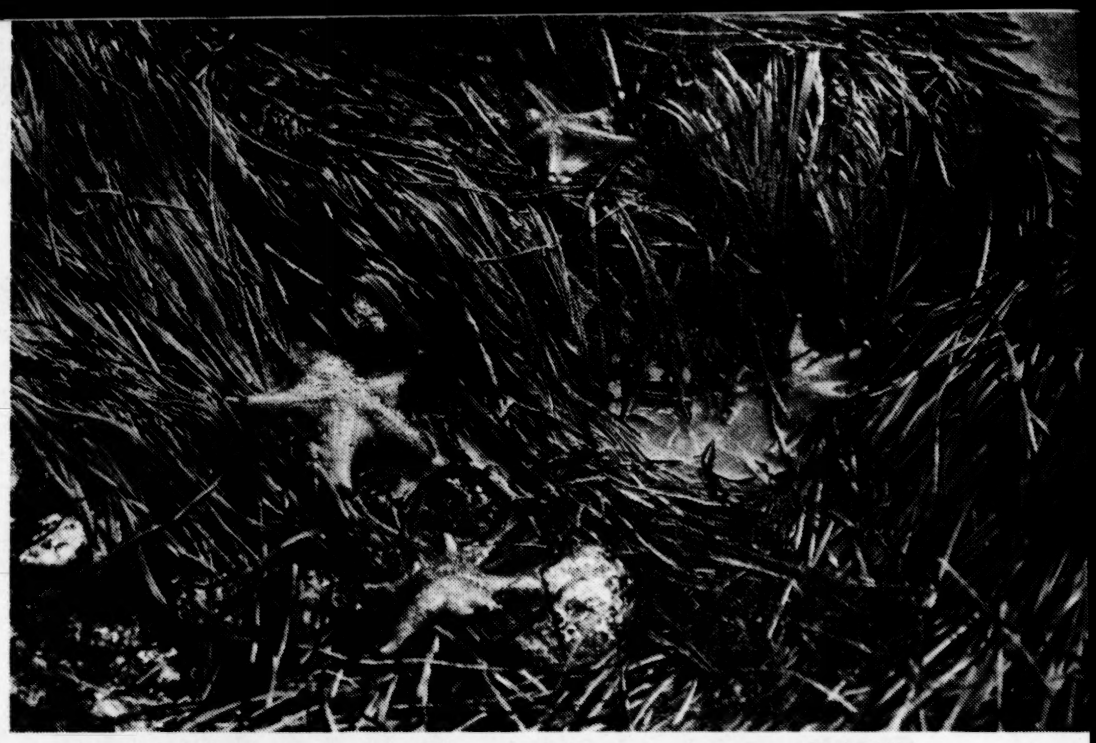


The streets of Chicago, where Ricketts was born in 1897, didn't afford many opportunities for a budding naturalist, but his early years there probably account for his life-long interest in people. His first real exposure to nature came at the age of ten, when his family lived for a year in the rural town of Mitchell, South Dakota. There he raised pigeons and cultivated an interest in butterflies, birds' eggs, and Victoria, the local rector's daughter. After two years' service in the Army at the end of World War I, he entered the University of Chicago where he studied zoology under the ecologist Warder Clyde Allee.

He attended the university from 1919 to 1922, taking a break in 1921 to escape from a romantic involvement with a married woman. This hiatus was spent on a walking trip from Indianapolis to Savannah, which resulted in his first popularly published article, "Vagabonding Through Dixie," in the June, 1925 edition of **Travel** magazine. Steinbeck mentioned the trip in **Cannery Row**, saying that the mountain people were suspicious of Doc's motives for such a long walk, and only came to accept him when he said he was doing it on a bet. The article suggests that the mountaineers' suspicions were based on a fear of

The man best fitted to observe animals, to understand them emotionally as well as intellectually, would be a hungry and libidinous man, for he and the animals would have the same preoccupations.

–John Steinbeck
Sea of Cortez



DAVID BURNOR

government Revenue agents, a fear which Ricketts' taste for their moonshine did much to allay.

He began his career in 1923. After dropping out of the university, he joined a fellow student, Albert Galigher, as a partner in a biological supply business in Pacific Grove on the Monterey Peninsula. The tidepools of the central California coast provided an abundance of marine animals which they collected, preserved, and shipped to school laboratories across the country. After a falling out with Galigher, Ricketts took over ownership of Pacific Biological Laboratories, eventually moving the lab to Cannery Row, where he lived until his death in 1948.

Fascinated with interrelationships between animals in groups and their environment, Ricketts saw the tidepool as a microcosm where the patient observer could find the richness and variety of life revealed. He loved the discovery of "true things" and the field of marine biology was well suited to his temperament. In his Zoological Preface to a proposed, but never completed, San Francisco Bay Handbook, he wrote that "a study of animal communities has this advantage: they are merely what they are, for anyone to see who will and can look clearly; they cannot complicate the picture by worded idealisms, by saying one thing and being another; here the struggle is unmasked and the beauty is unmasked."

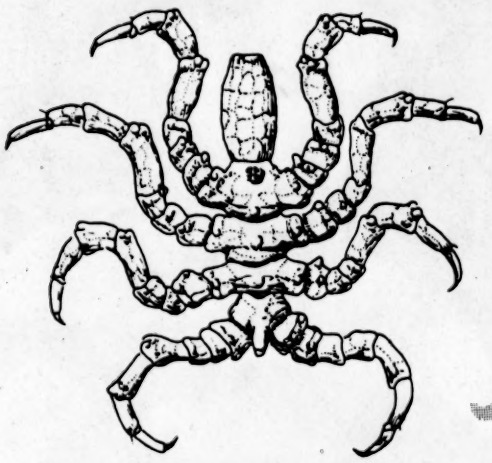
When he arrived on the Pacific coast, professional invertebrate zoologists were mostly concerned with collecting and identifying new species. William Emerson Ritter, of the University of California, was developing a more holistic view of animals with his concept of organismal unity, where individuals of a species combine to form a colonial superorganism in which the function of the whole determines the nature of the cooperation between its parts. Steinbeck learned of Ritter's concept when he studied at Stanford University's Hopkins Marine Station in 1923.

At Chicago, Ricketts had been introduced to Allee's theory of "mutual interdependence or automatic cooperation among organisms" in which the survival potential of certain different kinds of organisms is enhanced by their aggregation into a primitive social order. Allee saw these aggregations as a key to understanding higher social groupings. Ricketts amplified this theme in his Zoological Preface: "Who would see a replica of man's social structure has only to examine the abundant and various life of the tidepools, where miniature communal societies wage dubious battle against equally potent societies where the individual is paramount, with trends shifting, maturing or dying out, with all the living organisms balanced against the limitations of the dead kingdom of rocks and currents and temperatures and dissolved gases."

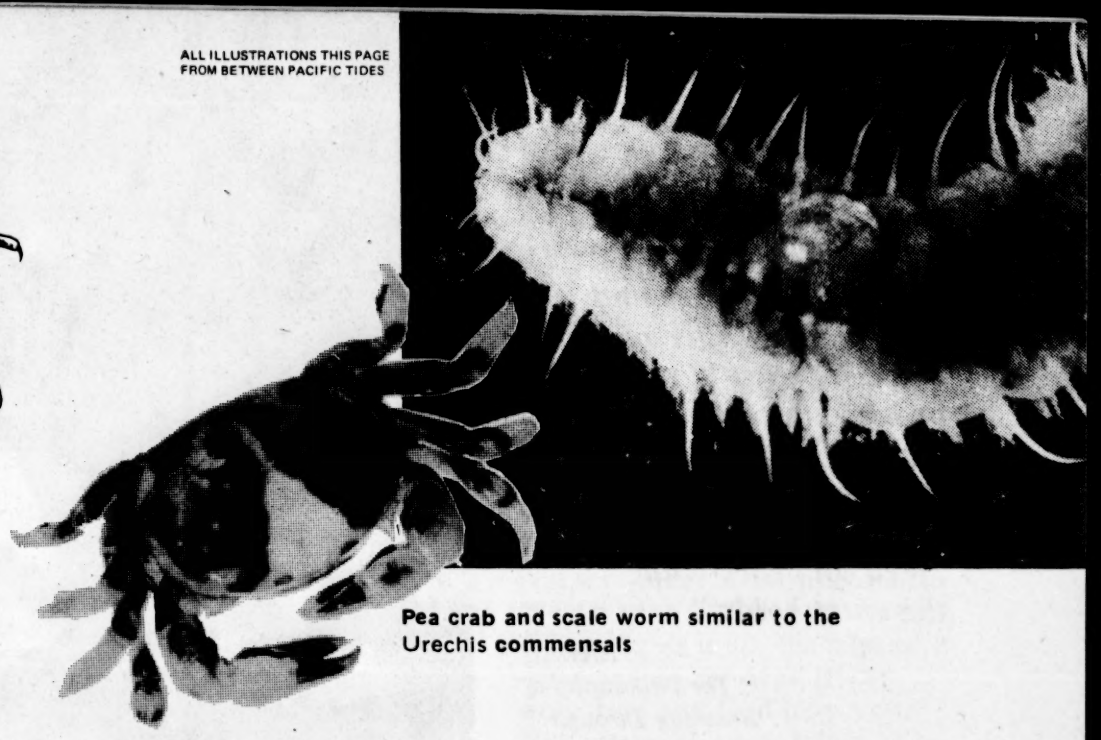
The tidepools along Monterey Bay in the 1920s teemed with the animals that were Ricketts' stock in trade. Hedgpeth tells us that the near extermination of the predatory sea otter was probably responsible for the proliferation of intertidal life. Ricketts spent a great deal of his time collecting during low tidal periods and, like many people who live near the seashore, became attuned to the tidal rhythm. He could feel the tide change in his sleep. Steinbeck wrote that he had an intense dislike for the exactness of time in most respects: "If you asked him to dinner at seven, he might get there at nine. On the other hand, if a good low collecting tide was at 6:53, he would be in the tide pool at 6:52."

In the early 1930s, Ricketts began compiling information for a beginner's guide to the marine life of the California coast. The project increased in size and scope to become **Between Pacific Tides**, published in 1939 by the Stanford University Press. It was the first guide book to use a classification system based on the physical characteristics of the coastal ecosystem, taking into account such factors as wave shock, tidal exposure and type of bottom. Rather than being a traditional listing of species, **Between Pacific Tides** examines some 500 invertebrates found in the littoral between Sitka, Alaska and Ensenada, Mexico in terms of their environments: protected outer coast, open coast, and bay and estuary.

ALL ILLUSTRATIONS THIS PAGE
FROM BETWEEN PACIFIC TIDES



Pycnogonum rickettsi, **a sea spider discovered by Ed Ricketts (drawing by J.W. Hedgpeth)**



Pea crab and scale worm similar to the Urechis **commensals**

Jack Calvin, a local author of children's books, helped polish Ricketts' prose, but biologist G.E. MacGinitie, writing to Astro in 1970, insisted that **Between Pacific Tides** was "essentially Ed's alone." Combining science with wry humor, Ricketts and Calvin introduce such tidepool denizens as the rock oyster, *Hinnites giganteus*, for whom "the half buried undersurface of some great rock offers the appeal of a fireside nook to a sedentary scholar," and the sunflower star, *Pycnopodia helianthoides*, which "indicates its attitude toward the human race by shedding an arm or two" when improperly removed from its tidepool. The sunflower star's favorite food is the sea urchin, but the authors note that it is "urchin enemy number two – first place now goes to the developmental biologists."

Ricketts was particularly interested in relationships which illustrated a high degree of environmental adaptation. The echiuroid worm, *Urechis caupo*, "aptly named the fat innkeeper, for it is the portly chief of as motley a crew of guests as one could hope to find," shares its burrow with the scale worm and the pea crab who keep the burrow tidy, feeding on discarded scraps too large for the innkeeper to digest. The infinite variety of these associations is best seen in the feather-like hydroids: "A hydroid colony, no bigger than can be contained in one's cupped hands may be almost a whole universe in itself – a complete unit of life, with possibly dozens of units in one tide pool. Each little universe includes amphipods, isopods, sea spiders . . . roundworms, other hydroids, byrozoans and attached protozoa, with a possible number of individuals that is almost uncountable."

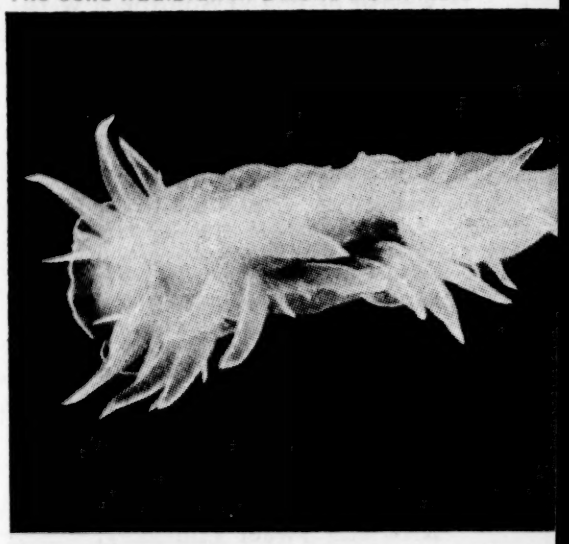
As Steinbeck noted in his foreword to the second edition, **Between Pacific Tides** "was designed more to stir curiosity than to answer questions." To this end, Ricketts included a unique systematic index, keyed to the text, and an annotated bibliography that leads the reader through the latest findings in the scientific literature. He recognized that continuing research would require periodic revision and updating. Dr. Hedgpeth has undertaken this task with considerable skill and an eye toward maintaining the sense of joyous wonder that fills Ricketts' descriptions of the "good, kind, sane little animals" of the tidepools.

Sharing an interest in biology, Ricketts and Steinbeck became close friends soon after their first meeting in 1930. Steinbeck derived much of the raw material for his writing from his friends and surroundings and drew deeply on the science and philosophy he and Ricketts discussed during collecting trips along the coast and over quarts of beer in the lab on Cannery Row. Some of their friends later resented his use of Ricketts as exploitative. Ricketts himself, however, was happy to share his

With any new food or animal he looked, felt, smelled, and tasted. Once in a tide pool we were discussing the interesting fact that nudibranchs, although beautiful and brightly colored and tasty-looking and soft and unweaponed, are never eaten by other animals which should have found them irresistible. He reached under water and picked up a lovely orange-colored nudibranch and put it in his mouth. And instantly he made a horrible face and spat and retched, but he had found out why fishes let these living tidbits completely alone.

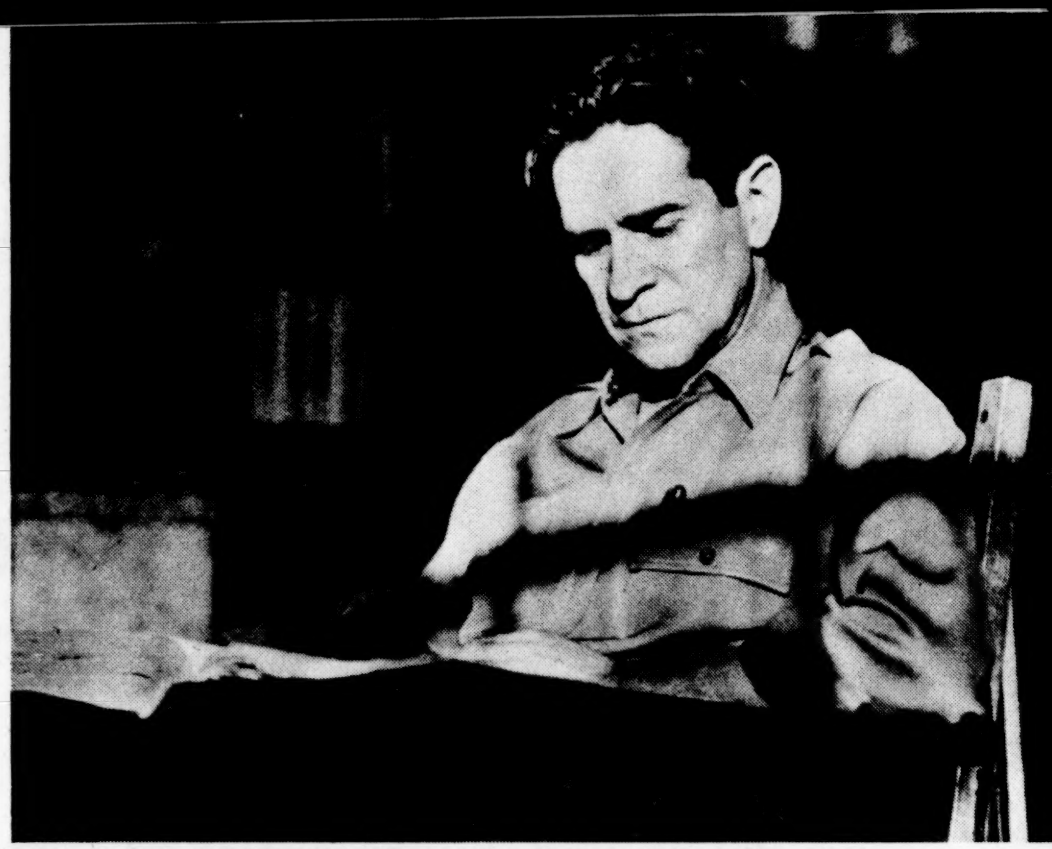
–John Steinbeck
"About Ed Ricketts"

The eolid nudibranch Dirona albolineata



Grief or love aren't to be brought on, they're to be taken when they come. No one can make the wind blow; the wise person will realize it must blow sooner or later of its own accord and will be correspondingly prepared. It will come inevitably in its time, "feed on peace while the crust holds."

–E.F. Ricketts
"The Philosophy of 'Breaking Through'"



The last photo of Ed Ricketts (taken on the afternoon of his death)

ideas and was pleased to take part in the development of the novelist's craft.

Ricketts first appeared as a character in Steinbeck's writing in the guise of Dr. Phillips in 1935 in **The Snake**, a short story about a woman who purchased a rattlesnake in order to watch it feed on a rat. The story is an account of an incident which actually took place in Ricketts' lab. Steinbeck heard the story from his wife Carol who worked as Ricketts' secretary in 1932.

Although Ricketts was not entirely responsible for Steinbeck's reputation as a "biological novelist," Astro points out that his "passion for holistic and ecological thinking, his associational beliefs about the behavior of men and animals in groups, his doctrine of breaking through, and his disdain for the self-oriented acquisition of material wealth provided Steinbeck with many of his central thematic tenets." Preacher Casy, in **The Grapes of Wrath**, echoes Ricketts' non-teleological philosophy when he says: "There ain't no sin and there ain't no virtue. There's just stuff people do. It's all part of the same thing." Facets of his personality can also be found in Doc Burton of **In Dubious Battle**, Dr. Winter in **The Moon Is Down**, Friend Ed in **Burning Bright**, Pablo in the screenplay of **Viva Zapata!**, and Doc of **Cannery Row** and **Sweet Thursday**.

In the spring of 1940, Ricketts and Steinbeck chartered Captain Tony Berry's purse-seiner, the **Western Flyer**, and, with Carol Steinbeck and a crew of sardine fishermen, set off to collect and catalog the marine fauna of the Gulf of California. The record of their expedition was published in December, 1941 as **Sea of Cortez: A Leisurely Journal of Travel and Research**, consisting of a narrative "Log," followed by an annotated phyletic catalog and bibliography describing the animals they found. The catalog is an original work of research, presenting a biological profile of a then almost unknown region. More recent studies have expanded our knowledge of the area, building on Ricketts' early work. The log remains a classic ecological portrait of the Gulf, the desolate Baja landscape, and its animal and human inhabitants.

Steinbeck insisted that the book was a "true collaboration" and both names appeared on the title page. Most reviewers ignored this, assuming, as Clifton Fadiman did, "that Mr. Ricketts contributed some of the biology and Mr. Steinbeck all of the prose." The reissue of the narrative in 1951 as **The Log from the Sea of Cortez** "by John Steinbeck" did little to dispel this notion despite the inclusion of a profile "About Ed Ricketts." Actually, Steinbeck did not keep a journal during the trip, using instead a transcript of Ricketts' journal as a guide while writing the narrative. The central "Easter Sunday Sermon" on nonteleological (actually anti-teleological) thinking was taken, almost verbatim, from an essay Ricketts had written and was having difficulty getting published elsewhere. This essay in particular, because it conflicts with Steinbeck's social activist reputation, still generates confusion among critics who use **Sea of Cortez** as a key to Steinbeck's world view without taking into account Ricketts' influence and the points at which the thinking of the two men diverges.

The expedition was limited by their charter to six weeks in the Gulf. They came to envy Darwin for the time he was able to devote to his explorations and the leisurely pace of the **Beagle** under sail. What time they had was spent collecting, observing, recording data, sampling the local beer, and then moving on to the next collecting site. Consequently, there is little "hard science" in the **Log**, its value lying instead in the ecological philosophy it presents. Steinbeck and Ricketts are at their best when, decrying the excesses of the overzealous scientific specialist, they look for the all important relationships. They find that "species are only commas in a sentence . . . one merges into another, groups melt into

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ecological groups until the time when what we know as life meets and enters what we think of as non-life: barnacle and rock, rock and earth, earth and tree, tree and rain and air. And the units nestle into the whole and are inseparable from it."

An encounter with a fleet of Japanese shrimp boats near Guaymas illustrates Ricketts' concern with the problems of uncontrolled commercial exploitation of natural resources. Using huge purse-dredges, the shrimpers would scrape the bottom clean, hauling up tons of shrimp and any other species which happened to get in the way. The unwanted fish and bottom creatures were then dumped, dead or dying, back into the sea. Ricketts was appalled by this waste and by the deadly efficiency with which the shrimping grounds were being scoured without regard to the delicate ecological balance.

The sardine fishery in his own home port of Monterey was already facing serious problems. In the late '30s, Ricketts and other scientists began to notice an ominous trend in the sardine population. The average size of the fish caught was decreasing with each season. Also, boats which were once able to find an abundance of fish in inshore waters were now having to cruise farther out to sea in order to locate the schools. Unfortunately, the downward trend began at a critical time. War in Europe had closed the vast North Sea fisheries and demand for Pacific coast sardines skyrocketed. During the 1940/41 season over 2 million cases were packed in Monterey alone. Record catches and inflated wartime prices gave the canners and fishermen little reason to heed the warning signs.

Ricketts advocated a strict conservation program and standardized catch limits until more information could be gathered about the ecology of the sardine. Instead, the landings soared, peaking at nearly 800,000 tons. By the 1947/48 season, the catch had dropped to less than 100,000 tons and by the mid-'50s the industry was dead. There was a lot of speculation about the "mysterious disappearance" of the sardines, but to Ricketts and others, such as critic Ward Moore, it was "obvious that the answer to the plaintive query, Where have all the sardines gone? is, Into the cans."

During the summers of 1945 and 1946 Ricketts visited the west coast of Vancouver Island and the Queen Charlotte Islands off British Columbia. Enchanted by the region, he planned a third trip for the summer of 1948, to complete the necessary research for a book about that rugged, storm-swept coast. Envisioned as a "cold-water **Sea of Cortez," The Outer Shores** was to have been his second collaboration with Steinbeck. He had already transcribed his notes from the earlier trips and sent them to Steinbeck with the notation: "Well Jnny boy, this is it, this is 30, the trips of 1945 and 46 are over, it's yr book now and God bless you." Ricketts and his new bride, Alice, were to have left at the end of May, to be joined by Steinbeck in July. The trip was never to take place. On May 9, 1948, while crossing the railroad tracks near his lab, Ricketts' car was struck by the Del Monte Express, deadheading to the overnight yards in Pacific Grove. Suffering massive internal injuries, he died two days later.

Without Ricketts, Steinbeck felt that he could not continue with the project. "The light," he wrote, "has gone out of it for me." His immediate reaction to Ricketts' death was violent, the sense of personal loss overwhelming. This loss would affect the rest of his career, for when Ricketts died, an integral

. . . A suave lobbyist says to the individual legislators: "Don't pay any attention to these scientists – good fellows of course; but their heads are in the clouds. Let's listen to the hard-headed businessmen. There's no chance of depletion. . . .

And the sardine populations DO decrease . . . Until finally the canners themselves – these down-to-earth hard-headed businessmen – get concerned over the scarcity. Their profits fade, their business decreases. In desperation they appeal to the division for protection, for a statewide regulation to prevent the taking of small sardines. What happens! There's a meeting. The canners of Southern California scream their heads off . . . Again the Division fails to act, confronted with disagreement. And in the meantime still more of the vital and decreasing breeding stock is being wiped out.

"Investigator Blames Industry, Nature for Shortage"
Edward F. Ricketts, **Monterey Peninsula Herald,**
April 3, 1948, pp. 1, 3

part of Steinbeck died with him. The true genius that Steinbeck's early works promised was never fully realized. Ricketts was the catalyst for much of the vitality of Steinbeck's thinking. In his examination of Steinbeck's fiction, Astro concludes that "the train that killed Ricketts set off a series of reactions that helped kill Steinbeck as a serious novelist."

To understand John Steinbeck, one must come to know Ed Ricketts. And the more one knows, the more Ricketts emerges as a great thinker in his own right. **The Outer Shores**, published in 1978, finally presents the "toto-picture" of Ricketts' life and work. The title is taken from the proposed book on the British Columbia coast and the transcripts he prepared for Steinbeck are published here for the first time. Also included is Ricketts' journal from the **Sea of Cortez** expedition which Steinbeck used while writing the narrative. The journal gives readers a basis for comparison with the **Log**, and an insight into the creative interplay between biologist and novelist. Curiously, Carol Steinbeck is not mentioned in the **Log**, though she is featured in Ricketts' journal. Hedgpeth ties Ricketts' papers and essays together with the most complete biographical information ever compiled about him.

The result is a view of Ricketts as a "naturalistic mystic" to whom biology, philosophy and the arts were but different approaches to arriving at a "deeper reality" in nature. His holistic beliefs led him to formulate a "Philosophy of Breaking Through," inspired by Robinson Jeffers' poem "Roan Stallion":

"Humanity is the mold to break away from, the crust to break through, the coal to break into fire . . ."

He longed to experience the "deep participation . . . the ultimate Tao" which would lead him to an understanding of things "which are not transient by means of things which are."

Perhaps Ricketts and Steinbeck came closest to "breaking through" in **Sea of Cortez**: "And it is a strange thing that most of the feeling we call religious, most of the mystical outcrying which is one of the most prized and used and desired reactions of our species, is really the understanding and the attempt to say that man is related to the whole thing, related inextricably to all reality, known and unknowable . . . plankton, a shimmering phosphorescence on the sea and the spinning planets and an expanding universe, all bound together by the elastic string of time. It is advisable to look from the tide pool to the stars and then back to the tide pool again." ■

Bibliography

Richard Astro, professor of English at Oregon State University, is responsible for the current revival of interest in Ricketts. His book, **John Steinbeck and Edward F. Ricketts: The Shaping of a Novelist**, Univ. of Minnesota Press, 1973, is a comprehensive examination of the effect their relationship had on Steinbeck's fiction. Astro also wrote **Edward F. Ricketts**, Boise State University Western Writers Series, No. 21, 1976. He places Ricketts in the company of such other Western American writers as Ed Abbey, Gary Snyder, and Frank Waters.

"About Ed Ricketts," the prefatory chapter of **The Log From the Sea of Cortez**, pp. vii-lxiv, was Steinbeck's attempt to lay down the ghost of his late friend. Many people who knew both men took exception to Steinbeck's portrait, notably Ward Moore in his criticism of **Sweet Thursday**, "Cannery Row Revisited: Steinbeck and the Sardine," **The Nation**, October 16, 1954, pp. 325 - 327. Moore accused Steinbeck of confusing the real man with his fictional creation. He ends acrimoniously: "What does Cannery Row think of John Steinbeck? 'Who?' asks one inhabitant. 'Wish I had his dough' mutters another."

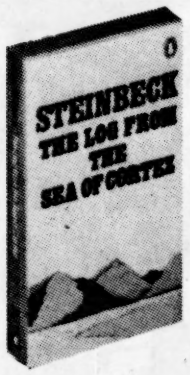
The first objective biographical sketch of Ricketts was Joel W. Hedgpeth's "Philosophy on Cannery Row" in **Steinbeck: The Man and His Work**, Richard Astro and Tetsumaro Hayashi, eds., Oregon State University Press, 1971, pp. 89 - 129. Hedgpeth knew both Ricketts and Steinbeck during the halcyon years of Cannery Row.

Clifton Fadiman's review of **Sea of Cortez**, "Of Crabs and Men," appeared in **The New Yorker**, December 6, 1941, pp. 107 - 108. Quotes cited from **Cannery Row** and **The Grapes of Wrath** are from **The Portable Steinbeck**, Pascal Covici Jr., ed., Viking Portable Library No. 2, Penguin Books, 1971. Also of interest is **Steinbeck: A Life in Letters**, Elaine Steinbeck and Robert Wallston, editors, Penguin Books, 1976. Only two of Ricketts' letters are included here; Steinbeck apparently destroyed most of their correspondence after Ricketts' death.

Ricketts found a forum for his concern about the sardine fishery in the **Monterey Peninsula Herald**'s annual Sardine Supplements. His lead article in the April 3, 1948 issue is the source of the tonnage figures cited. Dr. Frances Clark, of the California Division of Fish and Game, warned of the dangers of depletion in **DFG Fish Bulletins** as early as 1939. Like Ricketts, she was either ignored or castigated as an alarmist.

There are a number of books about the Monterey Peninsula but the best way to really grasp the feeling of the land and what it meant to a person like Ricketts is through the poetry of Robinson Jeffers. A handy edition is **Robinson Jeffers: Selected Poems**, Vintage Books, 1965.

W.C. Allee's **Animal Aggregations**, Univ. of Chicago Press, 1931, and W.E. Ritter's **The Unity of the Organism**, Univ. of California Press, 1919, can be found in a good university library. **Life Between Tidemarks on Rocky Shores**, T.A. Stephenson and Anne Stephenson, W.H. Freeman & Co., 1972, is an excellent worldwide survey. Concentrating on the animals in Ricketts' own backyard is the updated and enlarged version of Prof. S.F. Light's 1941 zoology syllabus: **Light's Manual, Intertidal Invertebrates of the Central California Coast**, Ralph I. Smith and James T. Carlton, eds., Univ. of California Press, 1975. A new study of the Sea of Cortez is Richard Brusca's **Handbook to the Common Intertidal Invertebrates of the Gulf of California**, Univ. of Arizona Press, 1973. Thomas Carefoot's **Pacific Seashores: A Guide to Intertidal Ecology**, Univ. of Washington Press, 1977, concentrates on the Pacific Northwest. Willard Bascom's **Waves and Beaches: The Dynamics of the Ocean Surface**, Doubleday, 1964, is a wonderful book about that place where land and sky and water meet.



Sea of Cortez

The hardback **Sea of Cortez** *includes the narrative log, scientific information and photographs. The paperback* **Log from the Sea of Cortez** *is just the narrative.*

The Log from the Sea of Cortez, by John Steinbeck, 1951, 1976, 286 pp.; $2.95 postpaid from Penguin Books, 299 Murray Hill Parkway, East Rutherford, NJ 07073.

Sea of Cortez (A Leisurely Journal of Travel and Research) by John Steinbeck and Edward F. Ricketts, reprint of 1941 edition, 1971, 598 pp.; $22.50 postpaid from Paul P. Appel, 119 Library Lane, Mamaroneck, NY 10543.

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There are some marine biologists whose chief interest is in the rarity, the seldom seen and unnamed animal. . . . Such collectors should to a certain extent be regarded as in the same class with those philatelists who achieve a great emotional stimulation from an unusual number of perforations or a misprinted stamp. The rare animal may be of individual interest, but he is unlikely to be of much consequence in any ecological picture. The common, known, multitudinous animals, the red pelagic lobsters which litter the sea, the hermit crabs in their billions, scavengers of the tide pools, would by their removal affect the entire region in widening circles. The disappearance of plankton although the components are microscopic, would probably in a short time eliminate every living thing in the sea and change the whole of man's life, if it did not through a seismic disturbance of balance eliminate all life on the globe. For these little animals, in their incalculable numbers, are probably the base food supply of the world. But the extinction of one of the rare animals, so avidly sought and caught and named, would probably go unnoticed in the cellular world.

—The Log from the Sea of Cortez

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We name the tidepool animals and describe them and, out of long watching, arrive at some conclusion about their habits so that we say, "This species typically does thus and so," but we do not objectively observe our own species as a species, although we know the individuals fairly well. When it seems that men may be kinder to men, that wars may not come again, we completely ignore the record of our species. If we used the same smug observation on ourselves that we do on hermit crabs we would be forced to say, with the information at hand, "It is one diagnostic trait of *Homo sapiens* that groups of individuals are periodically infected with a feverish nervousness which causes the individuals to turn on and destroy, not only his own kind, but the works of his own kind. It is not known whether this be caused by a virus, some airborne spore, or whether it be a species reaction to some meteorological stimulus as yet undetermined." Hope, which is another species diagnostic trait — the hope that this may not always be — does not in the least change the observable past and present.

—The Log from the Sea of Cortez

Between Pacific Tides

Between Pacific Tides, by Edward F. Ricketts and Jack Calvin, revised by Joel W. Hedgpeth, 1968, 614 pp., 4th edition; $12.50 postpaid from Stanford University Press, Stanford, CA 94305.

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The octopus's method of reproduction is decidedly unique. At breeding time one arm of the male enlarges and is modified (hectocotylized) as a copulatory organ. From the generative orifice he charges this arm with a packet of spermatozoa, which he deposits under the mantle skirt of the female. In some squids a portion of the arm is detached and carried in the mantle cavity of the female until fertilization takes place — often a matter of several days. This detached arm was formerly thought to be a separate animal that was parasitic in the female cephalopod. In dissecting male squid, the senior writer [Ricketts] has seen the packet of spermatozoa explode when the air reached it, shooting out a long arrow-like streamer that was attached with a cord to the spermatophore.

—Between Pacific Tides

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A large cucumber with a most un-holothurian appearance, *Molpadia arenicola*, is taken now and then at Newport Bay, in El Estero de Punta Banda, and probably other places. Habitués of the Newport intertidal regions call it the "sweet potato," and the name is rather appropriate. A sweet potato as large and well polished as one of these animals, however, would be a sure prize winner at a county fair. The first specimens we saw were dug near Balboa and put in an aquarium for the edification of a collecting party. We took them to be giant echiurid worms, and certainly there is little about them to suggest their actual identity: the mottled, yellowish-brown skin is tough, smooth, and slippery; there are no tube feet, and no obvious tentacles. *Molpadia* feeds by passing masses of sand through its digestive tract for the sake of the contained detritus. Since it lives in sand that appears to be fairly clean and free from organic matter, it must be compelled to eat enormous quantities of inert matter to get a little food. We have no notes on the speed with which the sand mass moves through the animal, but the better part of the weight of a living specimen, and much of its bulk, is in the contained sand. Remove the sand, and the rotund "sweet potato" collapses.

—Between Pacific Tides

The Outer Shores

The Outer Shores; Part 1: Ed Ricketts and John Steinbeck Explore the Pacific Coast, Joel W. Hedgpeth, editor, 1978, 128 pp.; $7.95. **Part 2: Breaking Through**, 1978, 182 pp.; $9.95. Both postpaid from Mad River Press, Rt. 2, Box 151-B, Eureka, CA 95501.

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I got to thinking about the ecological method, the value of building, of trying to build, whole pictures. No one can controvert it. An ecologist has to consider the parts each in its place and as related to, rather than as subsidiary to the whole. It would undoubtedly be good if political leaders, if there are such, would get to know that method. If they could realize no man is an island to himself, any more than the animals are that make up a community, that make up a region, that make up a coastline, he'd be careful to look at more than his own narrow segment. At least to keep more than that in mind. But how much of a whole picture can a person build? In a sense, all I end up with is a list of animals. Some new species; many extensions of range, some little bits of knowledge that hadn't been dug out before with reference to that particular beast. But even that's a contribution towards a whole picture; it's better than a specialist going into a region, collecting frantically all he can of a given group, reviewing them systematically, paying little attention to comparative abundance, to places where many individuals of a species and other places where only a few occur, tying up those anomalies of distribution with, if he can, physiography, physics or chemistry of the region.

—The Outer Shores, Part 1

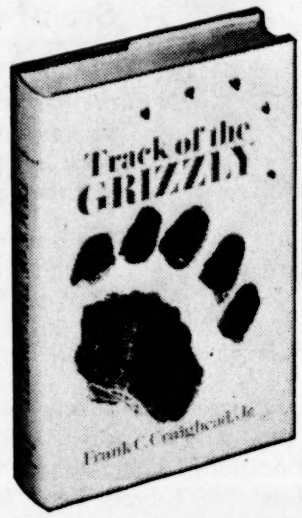
The Western Flyer — The Outer Shores

Marian and her yearling, Number 188, feeding on the carcass of a drowned bison along the shore of the Yellowstone River, soon after emerging from hibernation in the spring of 1965.

Track of the Grizzly

We have all become victims. "What happens to beasts," said Chief Seattle in 1884, "will happen to man. All things are connected. If the great beasts are gone, men would surely die of a great loneliness of spirit."

Track of the Grizzly *is the most elegant portrayal of beast, spirit and human life in a very long time. Not since* **Biography of a Grizzly**, *Ernest Thompson Seton's fictional portrait in the 1920s, has a book of such grizzly proportions been written. Grizzly in its contrast of the immense spirit and lifefullness of the beast in comparison with the mind-boggling pettiness and egotism of the bureaucracy trying to manage the beast. Craighead is a scientist with an unnerving inability to deviate from the facts or to chance a lyric sentence. His insistence on personal knowledge and untainted truth reveal the Grizzly's life (and ours) as no other book will ever be able to do again.* —*Peter Warshall*



Track of the Grizzly
Frank C. Craighead, Jr.
1979; 261 pp.
$11.80 postpaid from:
Sierra Club Books
P.O. Box 3886
Rincon Annex
San Francisco, CA 94119
or Whole Earth
Household Store

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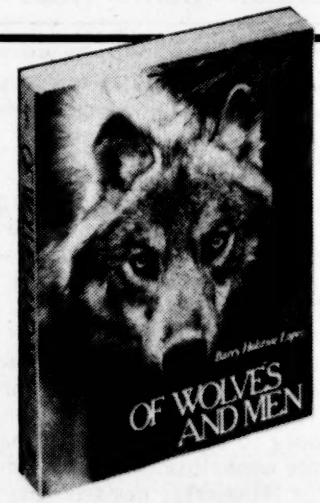
The same year, Number 80, dubbed the Bug-crew Bear, learned some fatal habits from a crew of young men (a "bug crew") hired for the summer to eradicate *Ribes*, or wild currant, on which forms the blister rust that kills the whitebark pine. The bug crew had been working along Carnelian Creek, which drains the watershed north of Dunraven Peak, and was eating lunch when the young grizzly approached. Although alarmed, they tossed food to him. The bear had already learned that buried remains of their lunches were tasty. Number 80 appeared the next day and the next, becoming bolder each time he was fed. Finally he made bluffing charges that put the crew up trees while he looked around for more food, rifling packs and lunch containers. When he left this area he passed close to our Canyon laboratory on the way to Hayden Valley. We immobilized, marked, and released him. From Trout Creek he wandered onto Shoshone Lake and there his ramblings ceased. He was killed by a seasonal ranger whose cabin he had entered and torn up.

Of Wolves and Men

There has always been that mysterious feedback: wolves startling the human imagination into new stories and new myths; the images in stories and myths somehow becoming the "real" wolf that dictates human love or hate towards individual packs and individual wolves. Barry Lopez is lovingly fascinated by these transformations. An elegant book on all fronts: absorbing photographs; captivating prose; Eskimo, Indian and medieval lore; modern science; game management and visionary guidance. He pulls the strings of Indra's net dazzling the multi-faceted jewels – each called Wolf.

–Peter Warshall



Of Wolves and Men
Barry Holstun Lopez
1978; 309 pp.
$7.95 postpaid from:
Charles Scribner's Sons
Vreeland Avenue
Totowa, NJ 07512
or Whole Earth
Household Store

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Here is an animal capable of killing a man, an animal of legendary endurance and spirit, an animal that embodies marvelous integration with its environment. This is exactly what the frustrated modern hunter would like:

the noble qualities imagined; a sense of fitting into the world. The hunter wants to be the wolf.

The first time I understood this I was talking with a man who had killed some thirty-odd wolves himself from a plane, alone, and flown hunters who had killed almost four hundred more. As he described with his hands the movement of the plane, the tack of its approach, his body began to lean into the movement and he shook his head as if to say no words could tell it. For him the thing was not the killing; it was that moment when the blast of the shotgun hit the wolf and flattened him – because the wolf's legs never stopped driving. In that same instant the animal was fighting to go on, to stay on its feet, to shake off the impact of the buckshot. The man spoke with awed respect of the animal's will to live, its bone and muscle shattered, blood streaking the snow, but refusing to fall. "When the legs stop, you know he's dead. He doesn't quit until there's nothing left." He spoke as though he himself would never be a quitter in life because he had seen this thing. Four hundred times.

It does not demean men to want to be what they imagine the wolf to be, but it demeans them to kill the animal for it.

Family cohesiveness, the key to life in hunting families. A father is flanked by two generations of his family — pups to the left, yearlings to the right.

Traveling Light

by Malcolm Wells

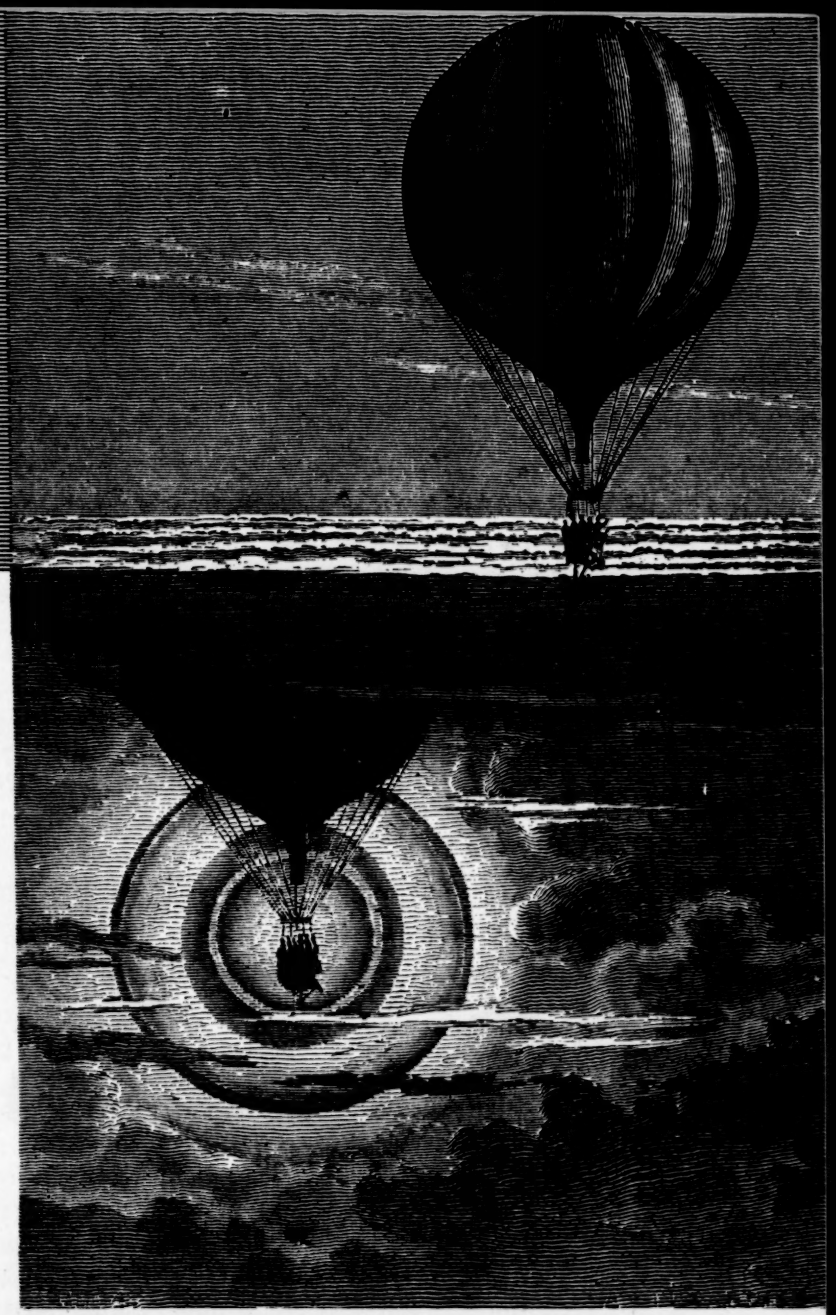
I'm taking the long way home by means of feeder airlines, puddle-jumpers, so we never fly at a very high altitude, which suits me fine. I love to see this country from the air.

A long time ago, I discovered that when the shadow of the airplane in which one is flying appears on the clouds below it is always ringed by a rainbow. I've never been able to figure out why this is so but it's a lovely sight, the tiny gray aircraft traveling within its magic ring of color. This is no pot-of-gold rainbow, for this circular one has no end.* When the cloud level is not uniform, the shadow rises and falls. When the clouds reach as high as the airplane itself the rise and fall of the shadow can be dramatic, even terrifying, as it zooms up close, then falls thousands of feet, only to leap right up close again, racing across the cloud faces just outside, a giant gray companion-plane locked in its blazing circles of color. It is an absolutely sensational phenomenon; it makes me yearn to tell my bored fellow passengers. They seldom seem to see the show outside, and not one in a thousand, I'll bet has ever seen the best part.

As we leave the clouds behind, I feel a distinct pang of loss. No more cloud-leaping shadow to watch. Nothing but featureless flat farmland. Then I notice our shadow again, far below, on the ground. Losing it and finding it (It's very tiny) I soon find that I can estimate its location by noticing the angle of the sun-shadows in the cabin and outside on the wing, and there, sure enough, is our little escort racing through a patch of woods and out onto a huge field. The shadow seems to be traveling within a dot of brightness slightly greater in intensity than that of the daylight all around. Of course: it's the rainbow! On the ground it appears as pure white light and not as colors. Now I can find our ground-shadow quite easily; my eyes move instinctively to that dot of light. The tiny aircraft is always at its center, always racing across the miniature landscape, always overtaking cars and leaping buildings. I wonder how many of the people it touches are aware of its passing. An instant of shade on a sunny day, an airplane high above; how many make the connection?

The moving shadow streaks toward a village. Watch out! Will it hit the church steeple? I forget to notice, *for all of a sudden the whole village is ablaze*! It's like "Close Encounters" come to life. Just as our shadow crosses Main Street all the lights go on! It's broad daylight down there but flash! – everything made of glass seems to explode with light. Reflectors, taillights, signs – Whammo! An instant of glory. It is incredible, and it ends so soon I can't be sure, afterward, that it really happened. I'll have to see if it happens again. Now I'm wide awake, waiting for the next chance. For a while, the haloed speck down below decides to be contrary, leaping across fields and forests far from anything made of glass. Now there's a highway ahead, a big one, maybe an interstate. Our path has got to intersect it. It does,

*William Shurcliff was the first person to discover that a rainbow has only one end. Otherwise there'd be two pots of gold, he reasoned.



and bam! – everything goes wild! A perfectly ordinary stretch of superhighway pulses with light from a hundred points, route signs with electric greenness, tiny roadside reflectors with searchlight intensity, yellow diamonds throbbing with color, and every taillight in the area a red sun. What a show!

I can't wait for the next road crossing. There's one, coming up, but our flight path is edging us so far to the left I'm forced to take over and do the flying myself. In spite of my efforts my imaginary controls are no match for the pilot's hydraulic ones and our shadow just misses the road. Well, there'll be others. Each time we get to them the whole thing happens again. Best of all is this entire town bursting with lights as our shadow races across its rooftops; the town no longer just an ugly asphalt and brick scar on the land. It is a holy city composed of pure light – at least for a second or two.

If no one in the cabin is seeing this, no one on the ground is, either. How can so much happen so silently? How can such radiance go unnoticed? Standing at the very heart of an absolute miracle each earthling misses it all, just as I must have done, all my life, until now. How much are we all missing, I wonder.

That was one flight I will never forget. I see it now as clearly as I saw it then: the blazing purity of those highway crossings, the tiny gray plane shadow so apparently unaffected by it all, flying through all those beautiful, silent explosions of color. Was it simply flying through them or actually creating them? Maybe every overflight does good things to the earth. Maybe each bird shadow fills towns with a similar light. *Maybe?* Of course it does. Every bird, every plane, every insect must have written on its operating license the duty of giving light to the objects below. Maybe that's what flight is all about. ■

SCIENCE FOR ALL, LONDON, 1883

Anne Herbert wrote what (judging from our mail) may be the most read part of the ***Next Whole Earth Catalog*** *– the excerpts from the* ***Rising Sun Neighborhood Newsletter*** *in the lower right hand corner of each spread. Rising Sun means the semi-fictitious neighborhood of Rising Sun, Ohio, and Anne's neighborhood now, and the neighborhood wherever you were when the sun rose for you this morning. Anne Herbert was production editor of the* ***Next Catalog*** *and assistant editor of the* ***CQ*** *for three years, and you've probably noticed her name on top of the masthead of this issue. She has also taught speech and painted an occasional wall.*

–Art Kleiner

WALLS

by Anne Herbert

Walls are for people. –Mural Manual

I LIKE TO THINK ABOUT walls. Walls are what you're given in a neighborhood. You're born there or you move there and there they are – brick or stucco or wood or glass and steel, forming the corners you'll turn and the textures your eyes will run over for all the time you're there. We spend so much time dodging the walls of our neighborhood and staring at them without quite seeing them that it's easy to think that because they're there we have to take them as is. But we're there too, and the neighborhood that touches us, we can touch back and change if we'll make the effort.

That's why I like people who paint on walls. The first person who I knew who painted on walls was Rob who had been painting and drawing in sketchbooks as long as I'd known him, (our whole lives), but who didn't paint outside in the neighborhood until we were in high school. It started when Lucille's Beauty Shoppe moved. Lucille got her nephew to paint a sign that said Lucille's and had a silhouette of a woman. Though it didn't look, as Rob said, "exactly like a gorilla in drag," it did look a whole lot like a strong-of-chin truck driver wearing a cheap page boy wig. Fortunately for Rob's intolerance of the ugly, Marcella's nephew hadn't been capable of painting letters backwards, so the whole sign was painted on the outside of the window. One midnight a few days after the opening of the new shop, Rob took a razor blade and scraped off the old silhouette and painted a really nice and indisputably better one with a swan neck and piled up curls that looked like Audrey Hepburn playing Marie Antoinette. We never knew exactly what Lucille thought (though it's stayed there to this day), but what I thought was "Isn't that amazing? You don't have to take it; you can change it." Positive vandalism became a possibility and boring walls and ugly pictures all around began to look impermanent.

The next wall Rob painted was the one on the boarded up warehouse opposite the library that said "Burns sucks." Those words were a peak in the continuing escalation between the cops and the bored high school guys who hung around outside the library. It was a classic young men of the tribe versus old warriors ritual, usually confined to hostile movements, muttered nasty words and patrol cars pulling over to give stern warning about the mysterious broken beer bottle found in the gutter. But Burns, a new police chief from out of town, had overplayed the game by starting to roughly frisk people, which led to the graffiti. It's hard to

explain where the graffiti might have led in that small, fairly religious, very straight town, but we never found out because Rob, who didn't hang out with the library gang but knew some of them pretty well from school, went and drew a butterfly around the fateful words. Then he asked them if they'd like to go with him to Amanda's hardware store to choose some colors to paint it. So they (and I) did and by the end of the day not only was "Burns sucks" gone, but all the ground floor boarded up windows were covered with flowers and rainbows and all that good sixties stuff and people got to feel good about "our basically decent young people" and the cops stopped frisking for a while.

Rob saved the day for purely aesthetic reasons, he said. He didn't like Burns at all (though he doubted that he ever got out of the missionary position) but he couldn't stand "the accidental angles of the B and the inadvertent roundness of the K" – two of his favorite letters not living up to their potential.

I liked helping with the warehouse painting a lot. It was the first time I'd painted on a wall and the first time I'd painted at all since art class stopped being mandatory. I'd never liked doing art myself, though I liked to watch Rob draw, but it turned out that that might have been because art class didn't have a big enough audience or a large enough sense of power. I'd hated the way that warehouse looked, all tattered and torn, for as long as I could remember, and when I was a little kid I'd been scared by its emptiness and darkness, and now it had two flowers I'd painted myself and a bunch of stuff I'd helped to paint all over it. Before the painting, I'd avoided walking next to the warehouse out of habit from elementary school days, but now I'd visit my flowers at least every other day. I got out some drawing books and listened to some tips from Rob and started to learn to draw because I wanted to paint on walls well.

About two weeks before Easter, Rob and I spent a wild night finishing our joint science project "Our Mr. Heart," a giant (3 foot by 3 foot) papier maché construction in day glo pink which was, as a whole, supposed to be a satire of both science projects and the worst in American ashtrays, and we had a lot of purple paint (veins you know) left over. (We got a B+ on the project because they wouldn't give us more – bad attitude – and they couldn't give us less. That happened to us a lot in school.) Looking at the two gleaming cans of purple, it became clear to us that certain of the yellow fireplugs around town were longing to become Easter eggs, or actually already were Easter eggs and only needed a bit of decoration for this to become clear to all.

We waited till Holy Saturday night and created an elaborate, curlicue-covered Easter egg on the fireplug outside the church – so elaborate that we only had time to really decorate one, but we put token purple on a bunch of others. At first we just painted the nut on top of them, but then we developed a ritual called "The Egging of the Plug" where we mystically determined exactly where each individual fire plug needed to have what quantity of purple paint dabbed for it to achieve its true identity as an egg. The amount of paint needed was often very small – a pin point – but the next day a few kids noticed what we'd done and started a different kind of Easter egg hunt, "find the purple on the fire plug." That hunt was the only part of the project that got us in any trouble at all. People going to church loved the egg and tended to assume it was official. Several people thanked the minister for it. The fire chief was pissed at first because we hadn't asked him, but his little kids loved it and he loved his little kids, so he didn't do anything. (Rob noticed that if he'd had adolescents who'd loved it, it might have made him more pissed – where does love go at age 13?) But some parents really didn't like their kids crawling all over fire plugs looking for paint. The old fear of dog piss which was not allayed when I pointed out that after all real Easter eggs enter the world through the same hole that chickens use the bathroom through.

But on the whole the fireplug painting was a hit and that and the warehouse flowers led to Rob and I getting asked to paint flowers and birds on people's sheds and Pennsylvania Dutch patterns on their garage doors and wings on kids' cars and things like that. We added painting walls to our usual round of activities, which was considerable. That year, among other things, we'd stopped by to say hi to the clerks in all the businesses on Main Street almost every day after school, made five foot valentines for two old ladies we liked (with the help of Amanda who was the right age to be an old lady by now but not the right spirit), left flowers in weird places on May Day morning, like gas pumps and parking meters and the smoking room at school, spent several days asking everyone we met the same question and passing the answer on to the next person – "Mr. Paxton thinks that the scariest part of World War II was hearing about Pearl Harbor and Mr. Schneider thinks it was when he dropped a hand grenade he was throwing. What was the scariest part of World War II for you?" We'd even carried out on our traditional observance of St. Swithin's Day – which was going through the streets saying "Swithin, swithin" and dragging partly unrolled rolls of aluminum foil behind us. We'd made that one up when we were 5 and fascinated by this mysterious holiday we saw mentioned in a book. We felt a little old for it now, but the little kids loved it and who could deny them pleasure?

We always had at least 3 projects going, which both Rob and I thought of and Rob provided the pizzazz to actually do. He'd always say "Let's go!" when I was ready to think about it for a few more days. Of all the things we'd done, wall painting was about my favorite, because it was a new skill for me, than which there is nothing more exciting, and because it left remnants you could visit. But

unfortunately even the fun of wall painting wasn't enough to distract me for even as much as a whole day from my search for Truth.

All the stuff I did with Rob and all the other fun or silly things in my life didn't seem totally real to me – in the back of my head and in the middle of the night, they didn't seem like they really mattered because they were so close and life was real and far away and probably bad and I didn't think I could really enjoy the small part of it that I happened to be until I was clear about what the whole thing meant and how I could make it all get better. I wanted to save the world and lucky Rob didn't get to hear about it, but Amanda did, a lot. I was skimming through Christianity, logical positivism, Buddhism, the social reform history of the United States and all the science fiction novels I could get my hands on, looking for the one action I could take that would feed the kids of India, stop the riots in Detroit and insure that there would be no more assassinations.

Amanda listened to the fruits of my search for big meaning and big purpose for hours, but all she ever said was she was waiting for the day when I noticed that thinking this way made me miserable and didn't help anyone else while doing stuff with Rob made me feel good and at least entertained other people. Eventually, she got tired of waiting. One time we were driving back home from Dayton and everytime we passed a particularly blank wall I'd say, "I want to paint that wall red," or "I want to paint that green," or "Blue and brown stripes for that one!" Finally, Amanda said, "What's the most important word in the sentence, 'I want to paint that wall red' – I or paint or wall or red?" After no answer, she said "Would it be enough if you came back tomorrow and all those walls were magically the colors of your choice?" Then I realized that the picture I'd had in my mind was not just of the color of the wall, but of my hand sloshing paint on it with my favorite brush after I'd used Amanda's paint mixing machine to get exactly the shade I had in mind – or exactly the shade Rob and I had in mind after we'd argued about it for a while – and the end of the picture was me hanging around after it was done with paint-splattered clothes, so that myself and others would know that I was one of the ones who made it red.

So I admitted to Amanda that the most important word was probably I, and she said, "What is the most important word in 'I want to save the world'?"

Which led to an ouch that kept on hurting for a while. I'd actually never realized before that I was an egomaniac – that thinking I could change the world was a weird scale-twisting thing where I made myself lots bigger than I was or the world lots smaller than it was or (probably) both. I realized how many of even the good guy things I'd done like reading to little kids and visiting people in nursing homes I'd done because I liked the attention. All this was news to me and seemed like bad news. For a while I gave up on ever changing anything at all. (I thought it was because the idea of making a change was itself so egoish, but it was more like quitting the show when I found out I couldn't be the star.)

I never stopped painting walls though, not because it fit in with my philosophy of the millisecond but because it was fun. Rob and I went away to different colleges that were pretty close to each other, so on weekends we'd get together and have the arguments that an optimistic war protester (him) and a fatalistic they'll-get-us-in-the-end war protester (me) always had. He'd tell me how great it was gonna be, the whole world friends through pot or communes or everyone taking acid or everyone overthrowing the war machine and I'd say "You can't change reality" and he'd say, "Why not?" One weekend we went all over campus painting that dialogue on walls that needed help. I'd do "You can't change reality" in black with storm clouds and he'd do "Why not?" in yellow with sunrise and sometimes we'd change lines.

Another time we stencilled the questions "Why be afraid?" and "Why be happy?" all over town, including the grownups' part. Rob liked asking questions because he had this whole thing that American walls had been co-opted by corporations and were as filled with propaganda as walls in China: "Raise high the banner of Chairman Sex through diligently following the tenets of Premier Money." He thought one way to reclaim the walls for the people was to ask questions people would be interested in answering on walls they hadn't thought of writing on, like the outside of banks and the inside of supermarkets. I wanted to ask questions because I wanted to see what people answered. Maybe the bread man taking away yesterday's bread would be surprised enough by the red one foot by two foot gothic lettered "Why be happy?" we'd painted on the bread shelf that he'd actually write down why and then I'd know.

As it turned out, the answers we got weren't nearly as good as the experience of learning to move quickly and look official while emptying, painting and refilling bread shelves and painting "Why be afraid?" on the back of a cop car. Almost all the ones we put

Chicano graffiti in Los Angeles. On the right, Leo draws Quetzalcoatl, the Aztec serpent god. On the left, Chas writes his name. Chas says, "Graffiti is worked out on the street. That's what I get a big kick out of. It's right out here. It's not controlled. You don't get a nice surface, like a fine artist. You just do it. It's like being naked out there." ***–Street Writing***

up in accessible places got "not" added to them – changing the questions to "Why not be afraid?" and "Why not be happy?" and changing the sense of the answers that people had put up before the nots were added. Most of the answers weren't very interesting and had to do with sex and drugs and rock and roll or religion. (There was a crossing out contest between two people who alternately said "Who can be sad as long as there's Mick Jagger/Jesus?" I liked the one green pen who found about half of the ones we put up and wrote two answers under both questions "Why not?" and "Beats boredom?" which helped me some.

About then, I started getting bored with graffiti, partly because I didn't have a cosmic theory of why I was doing it and partly because I missed the hometown audience. In Rising Sun, we couldn't really do any wall painting anonymously, partly because everyone recognized us and partly because we were definitely the only people in town who would decorate a fire plug. After people have seen you do a couple of St. Swithin's celebrations, they tend to assign all inexplicable oddness to you (and to be right). At first anonymity was liberating, but I missed having people know it was me that painted the wall and me knowing what they thought of it. At home people would seek out Rob and me and tell us what they thought of our latest, pro or con. (Except for Lucille, who probably knew Rob did the silhouette but perhaps couldn't think of anything to say.)

Here our work seemed to go off into vapor because even when people wrote back, we didn't know what they were like and what their answer meant in terms of their whole personality. So I started asking Rob while we were painting on walls, "Why paint on walls?" He answered by saying "Why not?" and also by painting the question on several walls. "To reclaim the right of all people to all property," and "The People's Porn!" were typical, uninteresting answers, but someone wrote, "So we'll know we're all in the same place, man," and that, believe it or not, seemed to be the answer, even a bit of The Answer.

Of course, whoever wrote it probably meant "place" in a really sixties way, but Rob pointed out that that was exactly what our Rising Sun wall painting did – it made all these people walking down the street absorbed in themselves or thinking of some other part of time and space stop and look at the new improved wall and be there in the same place with each other. They looked at the fire plug and they liked it or didn't but they said things to each other, and they noticed the fire plug and that they were there.

So when it's good, we decided wall painting makes people notice that they are in the same place, man, because it makes the place where they are worth being. "Every place is worth being," said Rob the cheery, "a good wall painting just makes people notice what is worth it about the place they already are." After due discussion while cleaning brushes and buying spray paint, Rob and I decided that painting on the wall was sort of the opposite of pissing in the soup. You did something to something that everybody shared to make it better, not worse – added your good spice to the soup to bring out a flavor people might otherwise have missed so they'd know the soup was worth eating. Or – you share your vision of this place so other people can see it too. We ran the sharing analogy through all the senses and several drugs, but it all amounted to wall painting makes people know we're all in the same place and makes the same place we're all in better.

The short term effect of that conclusion was to make us a little less smart ass in our wall painting – going for more in the way of beauty or meaning or both. The long-term effect was that we started using the idea of wall painting as a way of thinking about a lot of different kinds of people and what they gave to the commons. Somebody would let out a particularly fine "Wooeee!" at a concert and we'd say to each other "Wall painter," because not only did that person make everyone notice they were in the same place but that they were in the same place with a bunch of other people and not just the star of the moment. Wall painters to us were also street performers, dressers in gaudy colors (wall painting begins at home), and tall dignified elderly people clearly enjoying every step and every movement.

Wall painter thought is how Rob and I still keep in touch. Neither of us can get it together to write a chatty letter about teaching (him) and editing (me) but a good story or picture about wall painting in any sense whatsoever will get us out to the mailbox. The following are some stories about wall painting that I've told Rob that I'd like to tell you too so maybe you can think of some new ways to paint walls and some new walls to paint on.

BOX 428 SAUSALITO CA 94966

Two painters who wanted to work outside chose the most rundown lot in their neighborhood and cleared it off and started painting a garden on the walls. They did it gradually with little shoots first, followed over a couple of weeks by stalks and weeds and eventually flowers and vegetables. By the time they were done, some of the neighborhood people who had kept asking them why they didn't plant a real garden, had started to plant a real garden.

Heathcote Williams was once arrested in London for malicious mischief after he dug up a sidewalk to plant a rose and started to paint the house of someone he didn't know a different color in protest against the normalcy of the neighborhood.

David was arrested for defacing a pale when he was stencilling the Street Lightnin' Gang's logo on a traffic control box. Actually, he was originally charged with "malicious damage," which was a heavy charge. When the policemen took David back to the station house, David was afraid they would search his bags and find the hashish, so he started sketching them to distract them. They started to like him, and searched the statute books for a lesser charge to put on him, now that they'd brought him in. They found an antique law against defacing a pale which means messing up a pole.

The Street Lightnin' Gang is a graffiti artists' union that was started when Molly told David she thought they should start a street gang because she'd never been in one, and right then they passed a lid in the street that said Street Lighting.

David has not only put Street Lightnin' Gang logos all over hither and yon, he's also labeled a lot of locations such as the scuzzy Fourth and Hetherton bus stop in San Rafael and the storage container outside our office with World Teleport Headquarters stencils. When we're tired at the end of the day and home seems too far to drive to, we hassle David about the fact that his teleport stations don't work, but he says it's only a matter of time.

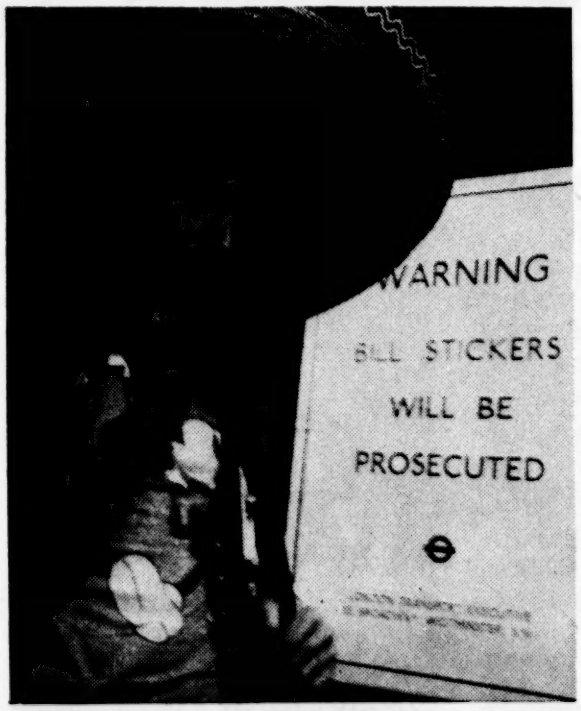
The other morning on the Muni bus two kids were reading a poem about Roberto Clemente that an art group had put up in place of an ad. The poem awkwardly read out loud said, "Won't forget his nervous habit of rearing his head back on his neck like a proud horse," and next to it there was a photo of Clemente looking up. The kids didn't get it but two old men at opposite ends of the bus both remembered days in the ball park and noticed each other remembering and exchanged a smile and knew they were in the same place.

Some kids in West Marin have a shy friend whose nickname is Skids. One time when he was gone on a trip they decided to welcome him back by painting the words Skids and some tire tracks on signs he'd see coming back. He liked it, they liked doing it. Now they put Skids wherever they can. If one of them goes on a long trip, he makes sure to put Skids as far away from home as possible in case Skids ever goes there too.

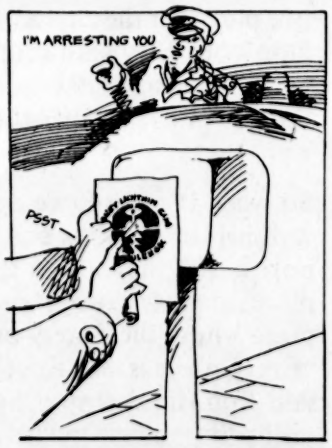
We write our names on walls because the people who made them did not write their names there. We will not pretend in the face of blank steel walls that we do not exist.

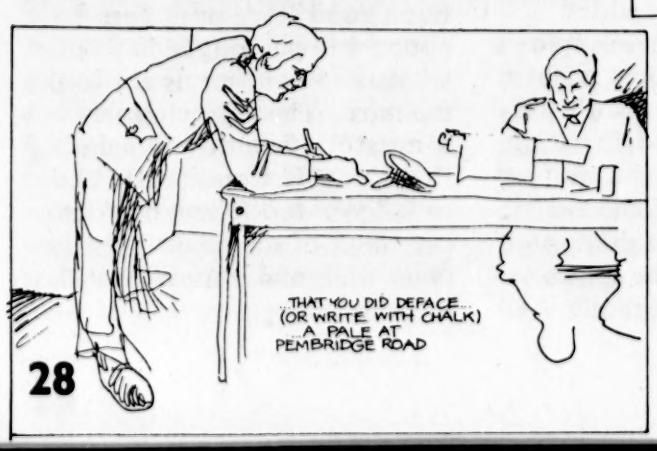
There's good and bad news on what we used to call the Bless This Wall problem – once you've learned to notice and cherish the place you're in and the people who share it with you, how do you communicate its unique wonderfulness to those people with money and bulldozers who think that it's no place in particular because they think every place is no place in particular? One at least temporarily effective way for a neighborhood to be taken seriously was found by the people of 3 square blocks off Freston Road in London that used to be called Notting Hill Gate and are now forever Frestonia. Frestonia used to be a laundry district in the 19th century and later used to have light industry and then later got run down and had squatters move in. Squatting is a lot more common in England than it is here – when there are empty

LUCINDA COWELL



David Wills' not too subtle graffiti painting outfit





DAVID WILLS

buildings people just move in. Notting Hill was a nice cheap place to live that attracted artists and other poor people. Then the Greater London Council decided the whole area was an unfortunate slum and should be cleared to make way for light industry. The people in the neighborhood were furious and decided that the way to get taken seriously was to become a country.

They declared themselves the Free Independent Republic of Frestonia, applied for UN membership and declared that any attempt by Britain to invade would be met with resistance. And somehow, doing that seemed to help, because Frestonia is still there and not slum cleared out of existence. This seems to be partly because the press really liked the country idea and it got the area publicity and partly because the country game helped the people in the area organize and have more than your average amount of fun organizing. There aren't neighborhood committee meetings, there are cabinet meetings, and people get to have titles like Minister of State for Industry and fire off letters to the UN on fancy stationery while meanwhile working out the "Who's going to clean up the trash in the street" list. It seems to work out well and the important thing is they're all still there, living their lives.

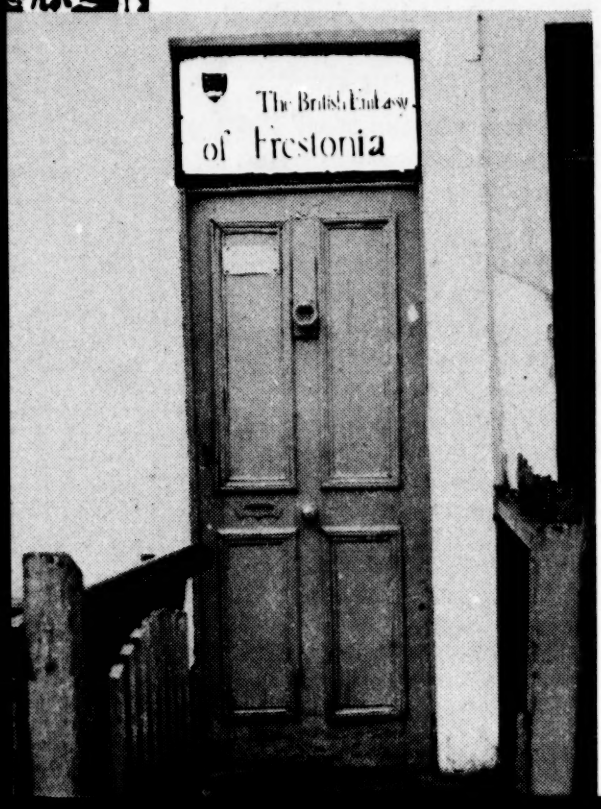
Which is more than you can say for the people of Gate 3, a houseboat area down the road from our office in Sausalito that was very similar to Frestonia in that some people had moved in as squatters when no one cared about the area and poor people who made art and poor people who did other things got to entertain each other by their presence. But property in Sausalito is getting really valuable and the landlord started planning to build some condos there. There were legal hassles of various kinds, but he got a demolition permit and then started being hassled about using it and he got tired of being hassled. He sent men with sledgehammers and bulldozers into Gate 3 at 6 a.m. one morning with no warning and started tearing down people's houses while they were still in them. They had to grab what they could and run away.

MIMI ABRAMS

↑ *John Van Damm of Sausalito and his houseboat. He painted it himself from a dream he had. John collects his neighbor's dreams about life on the waterfront and publishes them in* ***Gates****, his community dream journal. The dreamers are involved in a sometimes violent conflict with developers and he wants to remind them that all people are connected by a creative unconscious that can potentially transform any situation, no matter how hopeless seeming. Many of the dreams he records are from children and some are from people who hadn't remembered any dreams since childhood until John started his journal.*

This action has had many ramifications but most obvious is the landlord has what he wants. The walls that made that neighborhood exist aren't there anymore and that neighborhood will never exist again. Condo construction is proceeding apace.

There are many other houseboats in this area that are all under some kind of development pressure and the blatant violence of the landlord's activity has gotten them and some of the people with more money in Sausalito to organize a movement to declare the waterfront area an Art Zone, where artists can live cheaply. It seems similar to the Frestonia idea of making the neighborhood look serious by calling it something else, but the idea of a country sure is more powerful in our society than the idea of art. In fact 6 a.m. sledgehammers seem just like how society often treats artists and the words Art Zone don't seem to me to put a very strong wall around the neighborhood. But it's hard to fight bulldozers armed with money no matter what you do, so anything is worth trying. But what about the people who live there who aren't artists? The phrase Art Zone seems to create a performance criterion for living there. The only thing you should have to do to live in any neighborhood is just live, as best you can.



← *A neighborhood in London sends diplomats to Great Britain.*

Eugene Curley is a Navajo who lived in the Haight and used to walk up to walls and start painting them. He didn't ask permission. He thinks that all walls should be painted and the owner of the blankness has no right to stop you from filling it in. When he started painting forest scenes with streams and animals in the Haight in the early 70's, it was still a pretty down and out area. The owners of the walls were far away and the residents who saw the walls were pleased. The Haight is nicer, as they say, now and one

of Eugene's murals has been sandblasted away. Eugene feels a strong sense of union with nature and thinks that the nature that is missing from the streets should be put back there by artists. Eugene works alone and some of his murals still aren't finished. Since he's gone back to the reservation for now, it's not clear if they ever will be.

The only mural I know that lots of people make special trips to see is the history of People's Park Mural by Osha next to People's Park in Berkeley. It seems like a classic case of saying something on a wall that isn't being said anyplace else out loud, and people come to hear. This is what Robert Hurwitt said in the **East Bay Express**.

"On any given day you can see people gathered about it, counterculture tourists photographing it, or movement veterans using it as a visual aid in describing to their children what Mommy or Daddy did during the War at Home. I've done that myself. For many of us the painting of that mural had a peculiarly liberating effect. Novelists, sociologists, journalists, documentary makers had tried to depict the Berkeley of that era in their various media, but none had come close to capturing the turmoil and transcendent commitment of the times. Osha and his comrades had put that very quality in striking visual terms. It was as if we could stop living in the past, treating our minds as precious memory banks of oral history, and turn our attention to the present once more."

Osha disagrees in a really specific way with people like Eugene and Gary Graham, another nature-oriented muralist, about the value of putting nature on the walls. He thinks society is full of contradictions (you know, people stomping on each other) and they have to be made explicit on the walls. He said in the **Express**, (he said all of this in the **Express**), "The truest sense I have of reality is that it's filled with a sort of ominous negativity that has to be painted against in some direct way. My forms would go flaccid if I went out and tried to paint nature scenes." Of course, I think they're both telling big truths that are secrets on the average street – beauty and oppression get blanked out a lot in daily drudging. It is possible for political and beauty-oriented muralists in the Bay Area to get pretty ouchy with each other as a leftover of the sixties' happy hippie/intense radical conflict, but, as Gary said, "We shouldn't really fight until we run out of walls. There are a lot of walls out there."

The **East Bay Express**, by the way, is an incredibly good paper. It's your basic Berkeley-Oakland 8-page weekly giveaway that forces both its readers and writers to see the walls around them. When it first came out it almost stunned me by consistently having better writing than magazines I pay dollar bills for. I kept wondering, "Who are these guys? How do they do it?"

Well, now I know because Art went over to find out how they do it and it turns out to be a lot like the one brick story in **Zen and the Art of Motorcycle Maintenance** which you may or may not remember. The main character was trying to get a student to write something – anything – and she said she couldn't think of anything to write about. So he told her to write about Main Street in the town they were in and she couldn't think of anything to say and he told her to write about one building on Main Street and she couldn't and he told her to write about the fourth brick from the left in the third row of the building across the street and she started writing and went on for pages.

What Nancy Banks, the publisher, and John Raeside, the editor, do at the **East Bay Express** is tell writers that they can't write about San Francisco and they can't write about anything national. They have to write about the East Bay. Most of the writers live in the East Bay, but the idea of writing about what's around them freaks them out at first. They'll come very hesitantly with story ideas, not even admitting openly they are ideas, saying things like, "I always wondered about such and such but I couldn't write about *that*," and then Nancy and John tell them, yes, they can. They've seen that, "When writers are writing about the texture of their own lives, they write better," (even if they have to be coaxed to write about it). Nancy and John notice that they themselves are sometimes curious about things without realizing for a while that they are fit subjects for investigation.

The most popular story the **Express** has done was based on their own wondering why many

Gary Graham has worked on two murals for the Mitchell Brothers adult movie houses, one of sexy flowers and this one of sexy whales done with Lou Silva, Edgar Monroe and Tod Stanton. He has done another ocean mural under a freeway as part of the mural course he teaches at Vista College. That mural has a single whale and other forms of ocean life with leaking nuclear waste in the corner.

Eugene Curley, Haight-Ashbury muralist, with one of his murals that has been sandblasted. When Eugene painted it, the building was used for storage. Then a paint store moved in and asked the landlord to remove the painting. The paint store has since gone out of business and the building is a submarine sandwich place with a blank wall.

people in the East Bay put Clorox bottles on the edges of their lawns – sometimes one, sometimes three or four. It turned out that people put Clorox bottles on their lawns to keep dogs off, but there are lots of disagreements about whether the bottle should be half full of water or all filled with a water-Clorox solution or empty or almost empty and stuff like that. When they ran it, they immediately got calls about the really *right* way to do it.

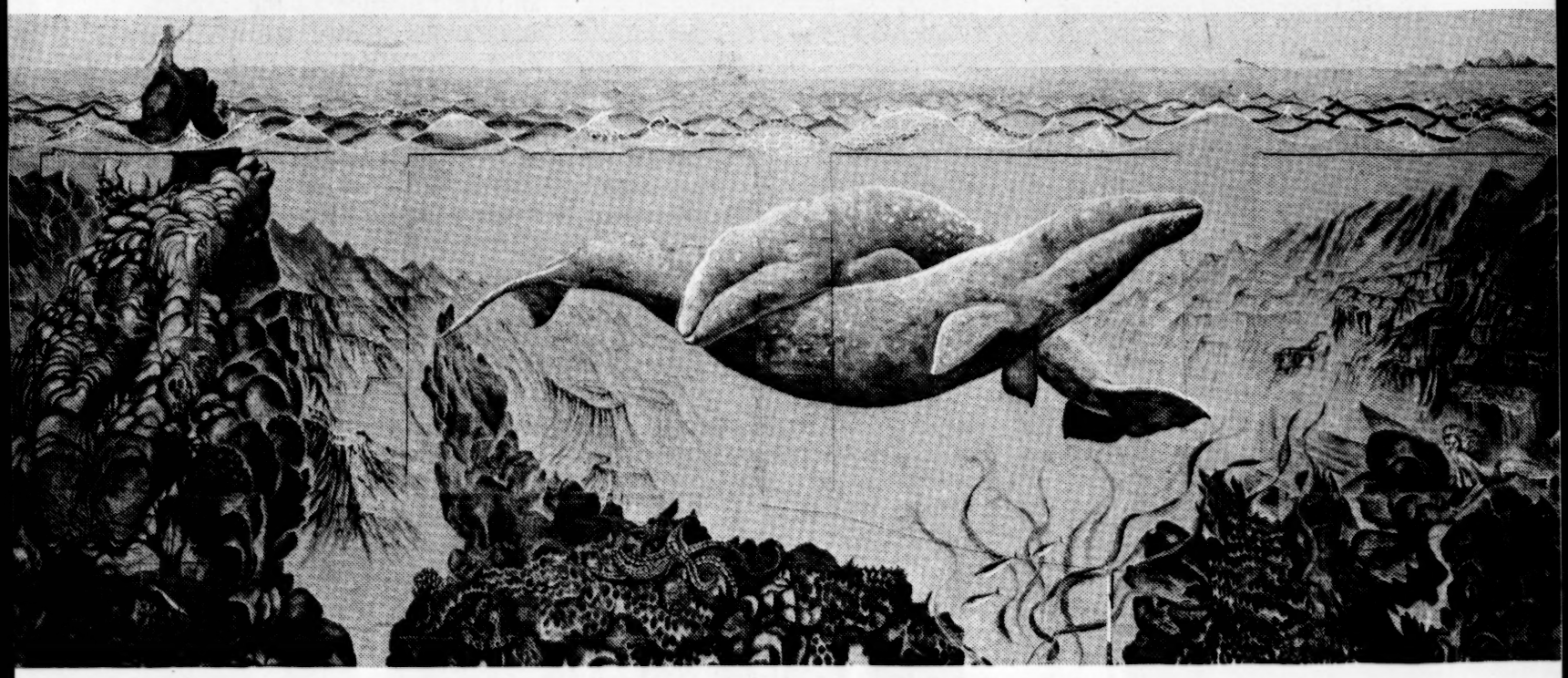
The second amazing thing I noticed about the **East Bay Express** after how good its writing is is that it wrote about people other than 30ish white professionals which is all that most weekly papers write about. It has stories about the black community, not as a locus of crime and problems but as a place where people live regular, interesting lives. It turned out that the way they started doing that was one of their writers, Lee Hildebrand, loves the blues and he'd go hang out in blues bars in Oakland and find out what was going on not just there, but in the rest of the neighborhood. (He entered the community through its songs – no wonder his stories are so real.)

When Nancy and John started they had a big supply of ideas for stories based on things they'd noticed around their neighborhoods and they figured those would last a long time and they'd always be able to come up with more. They ran through their original ideas in about 4 weeks. "Then we found out that the more time you spend behind the desk the less time you have to get out and see things. Noticing is really hard to do. You don't notice things unless you're involved in the community, unless you're wandering around. Now we have free lancers do it." (They did the story about Osha Neumann because someone called up and asked them who did the People's Park mural.)

They did notice the people who play craps on the sidewalk outside the **Express** office and did a story on them. They're all unemployed black men. John said, "They'd like to have a park. They don't want to be harrassed for being here. We got this great quote from one of them: 'What makes people think that just because people have nothing to do that means they have to stay home and do it?" (There's a man who likes to be out among the walls.)

Gary Graham does wall painting on a scale that makes ours of old seem like doing miniatures. I'm not sure why we never got into murals per se – probably laziness and the fact that the murals around in Ohio were geometric, or those industrial pun types like the one in Cincinnati of the giant screw pressing the windows together. Seemed sort of cold to me – didn't make me feel more there for more than 2 looks. This guy, Gary Graham, gets together with 30 or 40 other people and paints things like a 150 foot by 20 foot ocean mural under the freeway in Oakland and another huge space mural over a BART station in Oakland.

He started painting walls in the 60's sitting around stoned with a bunch of other artists and someone pointed at the upper right hand corner of the room and said there should be a sun there and the next thing you knew, there was. And the idea of painting outside appealed to him. He had grown up on the streets of pre-hippie Haight Ashbury and he thought that one of the best things about the hippie days was music in the streets – good art in what he felt was his home. He wanted to find a way to share his art – painting – with the neighborhood, and the Mitchell Brothers, owners of several adult movie houses, helped him.



Gary Graham, foreground, and Jack Greene, on the ladder, work on making a wall over a BART tunnel, under a freeway and at the end of a parking lot into part of the solar system. The mural is a project of Vista College.

What happened was he was having a hard time getting local galleries to show his big paintings of flowers and other organic things because they were very sensual – you know, they reminded people of sex. Someone told him the Mitchell Brothers had a gallery that might show them. He went there and they showed his stuff and then asked him if he was interested in working bigger – like, for instance, on the blank side wall of the theatre. So Gary got another artist to help him and painted some sexy flowers on the side of the building. He also painted his phone number. That turned out to be a way to meet other people who had painted walls or wanted to – a dozen or so called him and that led to a dozen more and now Gary spends a lot of time working with large groups of people on big murals.

It's fun to drive around with him because he's done enough murals now that he sees every underpass wall as a potential painting. Since he's got a good reputation with the highway people, it really is. He wonders about how you could paint those T-shaped road supports as Mexican gods or mindless commuters going to work and you don't know if he's kidding or not. And neither does he – if he found someone who was interested in helping, he'd consider painting the moon.

The way Gary gets people to paint murals is he asks everyone he sees if they want to help paint the mural of the moment. If he sees you three or four times in a week, he may ask you 3 or 4 times in a week. It works. He gets lots of different kinds of people to paint on walls. And then he has the patience to work with them and let them, people who've never met before, decide to a large extent what's in the mural.

His next project is painting an 8 foot high fence around a 5 block hole in the ground that will eventually be the Oakland Civic Center. That's 30,000 square feet to cover. He's asking different local groups to paint geometric patterns from their ethnic background on a part of the fence with lettering saying what each section is – Mayan, Cambodian, African, Jewish, etc. Getting enough groups active and coordinated on the project to cover the fence will take powers of persuasion and persistence that would take another person to the Million Dollar Round Table selling life insurance. I don't have any doubt that Gary will do it with the unstoppable cheer with which he does everything. I'm glad he's on our side.

Wall painters, including me and thee, tend to be pushy, I think because they remember or dream of a time when we had something more like water than walls between us, when the good stuff I had and the good stuff you had would flow between us easily, when being in the same place meant being in the same stuff and you never had to work at noticing that you were all in it together. Us wall painters want it to be like that again and sometimes we push pretty hard because we have to to make it even close to being like it was. Some pushy people are like Gary, of course, out there hassling with BART and the highway department and community groups to make something happen that should be as natural as going on a picnic. On a summer's day, a quarter of the population should say, "Hey, let's go paint a wall" but it can't be that simple here and now. Gary's not the only pusher – there's you aiming for the perfect lesson plan and me trying to edit the ultimate page that will make people make the connections and be there with each other for real this time. But I think it's easy for the fussers and fiddlers like you and me to forget that the connections aren't there because we pointed them out or painted them in but because they're there. Sometimes finding them means not doing anything at all to make them but listening to find out where they are.

Remember that night in the winter when Julie took us out and tried to show us the stars and planets in her telescope? All I could think was cold, cold, cold, and all I could see were blobs. But when I was looking at the Jupiter blob, she stopped talking about exactly what moon I should be seeing and started talking about how she studied the best photographs of the planets to be able to see more detail in the tiny dot of light in her telescope. She said that looking at photos of the red spot she could feel the hot fast winds of gas whirling inside herself and as she said that I could see Jupiter. I don't know if any of it came from that spot of light in the telescope or if it all came from my head and hers, but I was there, I was next

to it – huge and angry orange swirls fighting with each other and I could almost touch them but I didn't because I knew if I did I'd be pulled down in those swirls forever because there was no solid rock to touch on underneath. What I saw was much more detailed and focused than any of the pictures then, or now, but I guess it's what Julie saw when she thought of Jupiter. For days after, I wasn't sure there was enough of the Earth to hold me on it. I felt I was living in the solar system – vast emptiness interrupted once in a great while by monsters and jewels that I used to think were planets.

When remembering Jupiter made me afraid sometimes, I think that it wasn't just that I was afraid of the hotness and hugeness of it, but of the fact that I wasn't there for it – not the usual work a day, matter-of-fact "I" I'm used to anyway. Somewhere on the way to Jupiter, I fell out of my skin and became part of the universe for a moment, just an atom in empty space and I didn't find the experience entirely pleasant.

I felt sometimes that the emptiness would suck me away from life sometimes until years later when I started taking walks with Christopher. He's a naturalist who has spent 10 years of his life alone in the wild, most recently 18 months on Curaçao studying flowers. He says every time he goes into nature from the cities it takes him at least two weeks to begin to be living there. His city mind has to shut up and let his senses feel more and more. "Unlike traffic noise or party conversation, everything out there means something but it takes time for your calloused civilized body to realize that it's all worth paying attention to."

When I'm walking around the headlands with Christopher, he tells me facts about nature, but the best thing about it is not finding out what this seed pod does and why that bird's tail feathers are like that, but walking next to him and catching a little of what it's like to feel so much of what's going on in nature, that all the sounds are speaking to him and he knows what mood the birds are in and what the salt breeze does to this alien wildflower that evolved on the plains and that the breeze itself isn't just moving from the ocean to our bodies but is part of a giant glob of air oozing from the mid-Pacific to Kansas and around the world. I'm sure when the grass brushes his hand when he leans over to pick up a rock, there's a part of him that feels the roots going down into the soil and interlocking with all the other grass roots, and the whole Earth. The Earth is such a live place when I'm with Christopher and so sticky with things growing, that I'm sure that all that space can't pull me away and I stop being afraid of Jupiter.

I've always been very devoted to myself and my idea of what my self is. But I'm noticing more and more what a drab place my neighborhood is to live if I only have my own view of it – all those blank walls where things I'm not good at seeing are. We've been talking a lot in the office about seeing stars 3-D because a guy wrote us a letter about how to do it which is on the inside back cover. The key to seeing anything 3-D is having two views of it at the same time and bringing them together in your head. But why, I wonder, stop with two? If I could see what five of my friends would see looking out of the window I'm looking out of now, it would be at least 5-D and probably more and realler than anything I could ever see myself.

I used to want to know everything there is to know and I thought I could if I got enough books out of the library and thought enough long thoughts and pushed myself hard enough, but it doesn't work that way at all. I couldn't see any further than my backyard on my own and even that I couldn't see much of without Christopher to notice the bugs and Kathleen to see the colors and Evelyn to tell me what flowers it could grow. When I go off by myself for days to figure things out, I end up not being able to see much further than the five inches from the back of my skull to the front of my eyeballs. I'm always glad when I get tired enough of loneliness to let the walls of my skin disappear and move back into our neighborhood as far as you can see and as close as I can touch and tell you about. ■

One of the ways I paint on walls is I make things up. If reality is missing something, I figure out how I think it should be and write it down. Things that are notably made up in this piece are Amanda in her entirety and about 65% of everything Rob and I do. The other wall painters are real and a couple of them would like you to get in touch if you are interested in helping with their work. They are Francis Balter of the Poetry on the Buses Program, Carnegie-Mellon University, Pittsburgh, PA 15213 (their poem about Roberto Clemente was written by Tom Clarke); and Gary Graham, muralist, 1935 Oak Street, San Francisco, CA 94117.

Information about **Gates**, *John Van Damm's dream journal, is $.50 from Dream Tree Press, 10 Pleasant Lane, San Rafael, CA 94901.*

The **East Bay Express** *is available by subscription, $10/year for 50 issues, from Express Publishing Company, P.O. Box 3198, Berkeley, CA 94703. If you want to start painting murals the best book for beginners is* **Mural Manual** *(How to Paint Murals for the Classroom, Community Center, and Street Corner), by Mark Rogovin, Marie Burton and Holly Highfill; $5.95 postpaid from Beacon Press, 25 Beacon Street, Boston, MA 02108. The best instructions for professionals come with best, longest lasting wall painting paint – Politec, available $8.60/pint from Politec, Inc., 1157 Masonic Avenue, San Francisco, CA 94117 (write for price list).*

Two good books about painting on walls which provided some of the illustrations for this article are: **Street Writers** *(A Guided Tour of Chicano Graffiti) by Gusmano Cesaretti (1975; $3.95 postpaid from Acrobat Books, 420½ North Larchmont, Los Angeles, CA 90004) and* **Big Art** *(Megamurals and Supergraphics) by David Greenberg, Kathryn Smith and Stuart Teacher (1977; $8.20 postpaid from Running Press, 38 South 19th Street, Philadelphia, PA 19103).*

Steel awnings have replaced verandas and posts in Bathurst, Australia. The awnings give less shade.

Landscape

How people and what's around them meet and interact — in a marketplace in Sweden, potato farms in Maine, city neighborhoods in the United States, formal gardens in Scotland, harvest festivals in the Philippines, alleys in Washington State, on the Oregon Trail in the 19th century, and other parts of all over. Intelligent, well-researched writing about how various people have met the challenge of being entirely surrounded by stuff.

—Anne Herbert

Landscape
Blair Boyd, Editor
$12 /year (3 issues)
from:
Landscape
P.O. Box 7107
Berkeley, CA 94707

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Place Ballet is a phenomenological notion developed in David Seamon's **A Geography of the Lifeworld** to describe regularity of place founded in habit, routine, and supportive physical environment. Conducting their own daily activities, people come together in space, which takes on a sense of place. Individual participants using the same space unintentionally create a larger place with its own tempo of activity and rest, bustle and calm.

Place ballets may occur at various scales, indoors or out. A lounge, cafe, office building, village square, or any other situation where some users come together regularly, face-to-face, may provide a foundation for place ballet.

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I prefer breadth and variety to narrowness, so for me the term "landscape" means not merely "inland scenery," as the dictionary has it, but Yellow cabs, suburban gardens, Coca-Cola signs, Mies van der Rohe Seagram-type buildings wherever they are, teenagers lounging around, farms, mountains, the latest line of Mack trucks, the noise of jumbo jets, and the smell emanating from small-town bakeries. In fact, landscape includes all the ordinary and changing contexts of my life that I encounter in myriad forms every day. They are so commonplace, yet so confusing, that even though I am concerned about landscapes, I usually treat them as backgrounds to more immediate matters like parking my car. When I look at these ordinary landscapes I often find I can say little more about them than "this is a nice place where I go for picnics," or "there's nothing much to interest me here."

It is convenient to regard landscapes through clichés. Ours is a time-poor culture that places constant demands on us to be somewhere else doing something else, so we have to pack in what we can when the chance arises — a few quick tours of special attractions while on a two-week vacation or hurried glances through the car window while driving to work.

—Ted Relph

Invisible Cities

Any attempt at describing **Invisible Cities** *falls roughly in the same magnitude of difficulty as describing the shifting fire and color of a finely cut diamond. It is impossible to read these imagined dialogs between Marco Polo and Kublai Khan without subtly altering forever the experience of traveling to, or living in, a city. Through descriptions of Continuous Cities, Cities and Desire, Cities and Memory, and Hidden Cities, Polo helps his aged emperor discern "through the walls and towers destined to crumble, the tracery of a pattern so subtle it could escape the termites' gnawing."*

In **Invisible Cities**, *Calvino practices a magic based in contemplation and quiet optimism.*

—J.V. McShirley

Invisible Cities
Italo Calvino
1972, 1974; 165 pp.
$2.45 postpaid from:
Harcourt Brace and Jovanovich
757 Third Avenue
New York, NY 10017
or Whole Earth Household Store

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In Raissa, life is not happy. People wring their hands as they walk in the streets, curse the crying children, lean on the railings over the river and press their fists to their temples. In the morning you wake from one bad dream and another begins. At the workbenches where, every moment, you hit your finger with a hammer or prick it with a needle, or over the columns of figures all awry in the ledgers of merchants and bankers, or at the rows of empty glasses on the zinc counters of the wineshops, the bent heads at least conceal the general grim gaze. Inside the houses it is worse, and you do not have to enter to learn this: in the summer the windows resound with quarrels and broken dishes.

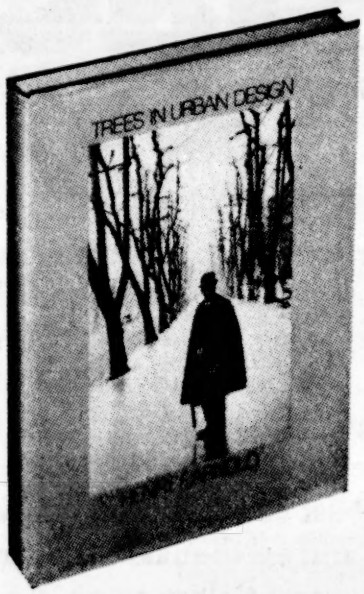
And yet, in Raissa, at every moment there is a child in a window who laughs seeing a dog that has jumped on a shed to bite into a piece of polenta dropped by a stonemason who has shouted from the top of the scaffolding, "Darling, let me dip into it," to a young serving-maid who holds up a dish of ragout under the pergola, happy to serve it to the umbrella-maker who is celebrating a successful transaction, a white lace parasol bought to display at the races by a great lady in love with an officer who has smiled at her taking the last jump, happy man, and still happier his horse, flying over the obstacles, seeing a francolin flying in the sky, happy bird freed from its cage by a painter happy at having painted it feather by feather, speckled with red and yellow in the illumination of that page in the volume where the philosopher says: "Also in Raissa, city of sadness, there runs an invisible thread that binds one living being to another for a moment, then unravels, then is stretched again between moving points as it draws new and rapid patterns so that at every second the unhappy city contains a happy city unaware of its own existence."

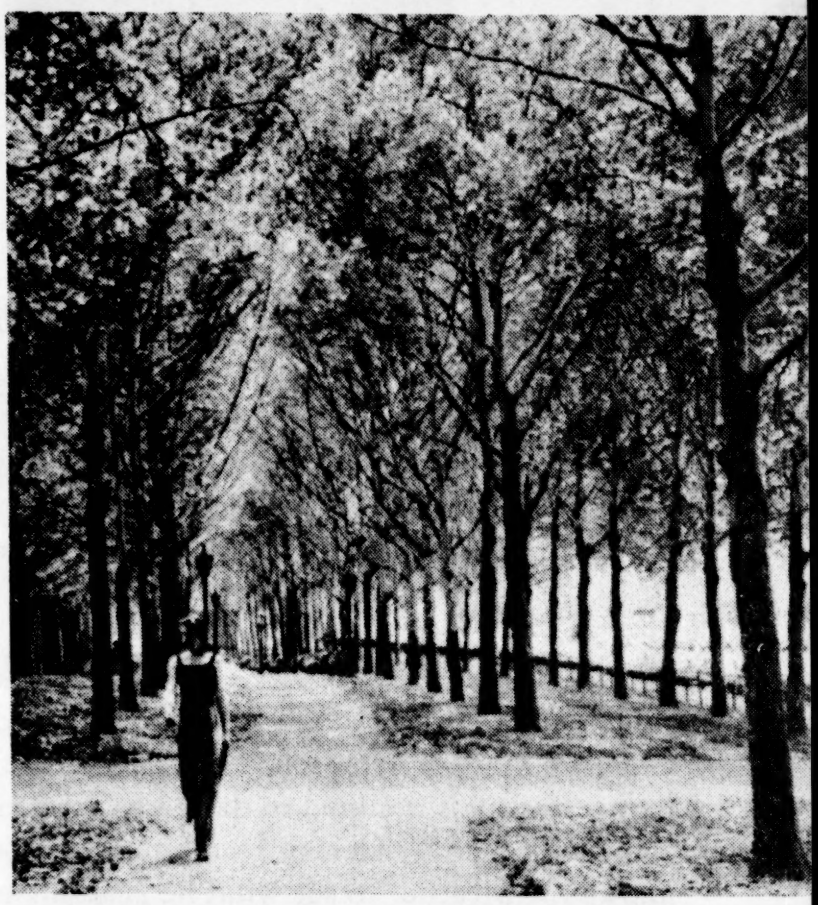
Trees in Urban Design

This bold book should be required reading for the council of any city with a bleak treeless aspect. I say bold because the author goes way beyond the safe ground of history, mere complaint, and guilt-inducement. He ventures into detailed prescription that is so compelling that the only guilt you are likely to feel will be from not acting after reading. The author also courageously attacks many existing but ineptly realized tree plantings, naming names and giving spirited criticism before presenting the suggested antidote. Species are reviewed, sun angles considered, and above all, esthetics and the spirit of the urban scene are taken to be improvable instead of hopeless. Good job!

—J. Baldwin

Trees in Urban Design
Henry F. Arnold
1980; 168 pp.
$24.50 postpaid from:
Van Nostrand
Reinhold Company
Order Department
7625 Empire Drive
Florence, KY 41042
or Whole Earth
Household Store





Trees in North America tend to be exploited as individual specimens that do not form a roof of foliage and branches. The Plane trees in Cadman Plaza Park in Brooklyn are an exception.

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Trees in design. The most persistent problem confronting every designer who works with trees is their seductive appeal. The remarkable aesthetic power of trees distracts artists so much that their potential for building dense organic compositions has been replaced by an over-refined, precious reverence for individual trees. Trees are the most exquisite and the most sparingly apportioned raw material of urban design. Our cities display a mere dollop of their sensual color and form. There are exceptions both in North America and Europe to this general rule. Yet the paradox remains — we fail to design with our most humane raw material.

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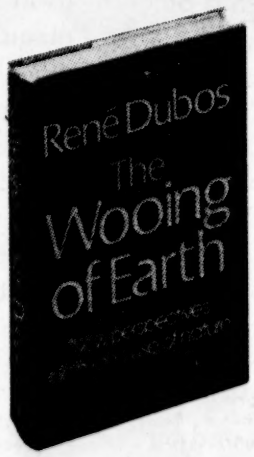
Viewing cities of the United States from the air reveals that the central areas are deficient in shade trees regardless of the size of the city or its location. In every city, automobile parking lots occupy large treeless paved areas even though trees would make an ideal sun screen for such a land use. Lack of trees does not correlate directly with building height, but does reflect the intensity of use. Waterfront sites are almost universally treeless even when they are not being employed for any active use. The density of tree planting commonly increases in direct proportion to distance from the urban center.

The Wooing of Earth

Not since his **The Mirage of Health** *has René Dubos so neatly reversed a conventional unwisdom. If you believe our most zealous environmentalists, human beings haven't done anything environmentally decent since the invention of agriculture. Dubos proves otherwise, that humanity commonly does right by its surroundings and that the world abounds with excellent models of how to make balance go well in the areas that still need work.*

—Stewart Brand

The Wooing of Earth
(New Perspectives on
Man's Use of Nature)
René Dubos
1980; 183 pp.
$8.95 postpaid from:
Charles Scribner's Sons
Vreeland Avenue
Totowa, NJ 07512
or Whole Earth
Household Store



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In several parts of the world, damage caused by water pollution has been completely or partially corrected, not by treating the polluted ecosystem, but simply by interrupting further pollution and letting natural forces eliminate the accumulated pollutants. The results achieved for the Thames in London, the Willamette River in Portland, Oregon, Lake Washington in Seattle, and Jamaica Bay in New York City are but a few among the many examples of improvement in water quality achieved by antipollution measures during the past decade.

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Stone Age people related almost exclusively to their immediate surroundings, whereas today we begin to have the whole planet in mind and to be concerned with its distant future even when we engage in local action. We are becoming planetized probably almost as fast as the planet is becoming humanized, both processes being greatly accelerated by the increase in world population and by technological development.

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The word *environment* does not convey the quality of the relationships that humankind can ideally establish with the Earth. Its widespread use points in fact to the present poverty of these relationships. In common parlance, as well as etymologically, the environment consists of things around us, out there, that act on us and on which we act. Whether good or bad, the physical components of our surroundings are foreign to us and we are foreign to them.

Don Ryan is a cartographer, graphic designer, paste-up person and the man who took pictures of 2500 book covers for the Next Whole Earth Catalog. *In the 4 years I've worked with him, he's made scores of trips to visit Los Angeles. And I, coming out of a sophistication based on spending 26 years in Ohio, 4 years in Northern California and 2 days in Los Angeles, always said, "Why go to Los Angeles? There's nothing there." Reading this article, I began to learn there's a lot.*
—Anne Herbert

L.A. is a Real Place

by Don Ryan

LOS ANGELES is the capital of entertainment and of aerospace, a haven for wandering displaced ne'er-do-wells who can only find jobs in its omnipresent car washes. It is caught in a web of endless freeways populated by hapless souls doomed to daily hundred-mile commutes. It has been called "forty suburbs in search of a city" (and much worse). The only advantage of its smog is that it allows the breather to see what he is about to ingest. Los Angeles is beset by almost constant crime which, when murder, is expected to be bizarre. It is served by unimpeachable politicians and protected by especially honest cops who are powerless, however, to save it from disaster by brush fire, flash flood, and earthquake. Regarded by escapees as a terrible place to have been it is paradoxically a great place to go — a land of opportunity, especially if you like your bucks big and quick.

All wrong? Right on? Exaggerated?

Well, no yes maybe not at all. It also just may be true that Los Angeles is the city of the future. "You don't like suburban sprawl?" taunted Herman Kahn in CQ (Spring 1977, p. 8). "I'm sorry for you. It seems to be very much the future."

Sounds dreary to some. But as nature abhors vacuums, it also avoids featurelessness. In Los Angeles the hundred-square-mile stiflingly homogeneous suburban sprawl which is the legacy of the post-World War II boom may prove to have been the necessary precondition — the sterile agar in the urban petri dish — for growth of new kinds of communities based on ecological diversity, mobility, social ferment (not to say turmoil), and dispersion of employment. We can be glad that those forty suburbs haven't found their city.

It was a great mixed-up, semi-rural, sub-urban melange of a place for me to begin my growing up (of course L.A. as a growth medium may be responsible for how long the process is taking) and it looks today like it may be getting better.

STABBING OUT OF THE west like a giant dusty green brown organic Spanish dagger into the pulsing heart of the metropolis are the fifty-mile-long Santa Monica Mountains. Just before the very point of piercing the pericardium the dagger has impaled two stuffed olives that today are Griffith and Elysian Parks and hard by that point was the rancheria of Yang Na where the natives offered the first Europeans baskets of edible seeds which the Europeans could not accept because they had no pockets. The natives threw the seeds in the air and on the ground in exasperation and on that very spot my home town was born and near that very same spot one hundred sixty years later I was too.

OUR ELEMENTARY school was a block away from Ventura Boulevard where the bus stop was. There was a path through Pack's Nursery in between. One afternoon Terry was horsing around with his friends on the path through the nursery and tripped into a pile of manure. Buried in the manure, tines toward the path, was a pitchfork. Another time Terry had to get shots was when we were both playing across the street and I found a dart. An old wooden dartboard dart with real feathers (even then we were used to plastic ones) and a weighted tip and rusty point. Terry asked to have it so I let him. It stuck in his shin as I recall. What are brothers for?

THE FIRST EUROPEANS there called the river Porciúncula, after the name given by Saint Francis to the deserted chapel near Assisi, furnished him by the Benedictine monks. The word means a small piece of land or a nice little place. It was given to the stream in remembrance of the chapel by Franciscan missionaries camped by its banks during an expedition from San Diego to the site of the new capital of Alta California at Monterey. The date was August 2, 1769, the feast day of Our Lady the Queen of the Angels (Nuestra Señora La Reina de Los Angeles). Twelve years later when a Pueblo was founded on the site of the camp, that date was commemorated by calling it El Pueblo de La Reina de Los Angeles de Porciúncula. By the time California was overrun by Yankees in the 1840s the town was being called Los Angeles and so was the river.

While the Porciúncula is made the brunt of many jokes (I have a Van Nuys High School yearbook autographed by a pal: "Friends 'til the Los Angeles River wets its bed," and a mayoral candidate once included in his platform a promise to paint the concrete channel blue) someone ought to remember that until the aqueduct from the sierra was completed in 1913 the Porciúncula's watershed was the sole source of domestic, industrial, and agricultural water in most of the L.A. basin. And despite the abuses and worst intentions of developers and planners the stream still runs clear and swift all year long and there are still some nice little places along its banks.

ON A RIDGE MOST visible from the front yard of my parents' house, against the sky, is a tree shaped like a dancing bear. At least when Terry and I were kids it looked like the bear in a storybook we knew. It also looked like Sleepy Bear, the emblem of TraveLodge motels and even more like the Bear wheel alignment signs.

The tree is a coast live oak, an outlier of a pretty glade of the trees farther up the ridge. Mr. Tegler, who was quite a horticulturist and had a backyard lath house (and whose standard greeting was "Hi, Biscus!") used to hike up that hill with a big sack and collect bushels of oak leaf mold under those trees. Surrounding the oaken core of the woods was a belt of native black walnuts, handsome small trees whose fruit falls in halves as it weathers on the ground revealing perfect miniature imitation pig snouts on the parting faces. The shells of these nuts are very hard and contain no discernible meat that I was ever able to find. With kiddish enthusiasm and insensitivity we whacked and hacked and carved at those trees with the sheath knives so essential to our hikes. The oaks were the most satisfying to carve because the thick pulpy bark looked like bloody raw meat when it was cut.

My parents still live in the same house, where they lived when I was born (which is regarded as an oddity I guess, in L.A.) and last month I hiked up on that ridge. The oaks and walnuts are still there and most of the carved initials are still readable. It doesn't look as though anyone has harvested the leaf mold in the thirty or so years, in fact the trails don't seem generally as used as they were before, but I really couldn't say – maybe the kids that play there today tread more lightly. The tree that looked like a dancing bear is still there too, looking more like a moth-eaten dancing thirty-something year old teddy bear. It appears to have danced a little farther down the hill too – it's a lot closer to the houses below than I remember.

WHEN I WAS TWELVE or so my friend Warren (who carried his pellet gun) and I went for a walk along our favorite trail, up the ridge where the bear tree was. We came upon a medium-size gopher snake, three feet long or so, and a cottontail rabbit. Both were alive and the rabbit was halfway in the snake's unhinged jaws, head

first. The rabbit was kicking its hind legs but the snake was frozen – its swallowing interrupted by our sudden appearance. The slightest expression of embarrassment and discomfort flickered across its lidless eyes. I left Warren there and ran home to get my Brownie camera. It took almost an hour for the round trip and when I got back Warren was still there. The cottontail had suffocated and there was a neat round hole between the embarrassed uncomfortable lidless lifeless eyes of the gopher snake.

MOST CALIFORNIANS tend to think that bears and deer belong in the forests and mountains and have always lived there, and that people belong in the valleys and on the seashore. Ghosts of long-obliterated mining hamlets hover in the canyons of the San Gabriels putting the lie to the human boundaries and within recent memory dangerous carnivores prowled inside city limits.

The animal that once loomed largest on the landscape was the California Grizzly Bear. Twice the size of the common black bear which occupies some of the grizzlies' vacated habitat, these bears were, as a species, the world's biggest carnivores. With a shaggy brown coat, a hump on their shoulders, four-inch front claws and long slim canine teeth, they were dominant figures – especially in open country where they were inclined to gather in herds of a dozen or more. The grizzlies' tolerance of close ursine company can be attributed to their omnivorous habits. A range can support a much greater concentration of bears acting as vegetarians than it can support bears which must eat freshly killed meat. As well as the wild ungulates which abounded near L.A.: elk, deer, and antelope; and domestic cattle, sheep, and especially pigs; the bears ate beached sea life including whales, seals, sea lions, and freshwater fish; succulent insects of all sorts, berries and fruit, grass and forbs; and most of all, acorns. In the chaparral, oak woods, and thickets of Los Angeles, grizzlies were in bear heaven.

Because of their upright stance when fighting, and their mannerisms and personalities, Indians throughout California regarded grizzlies as close relatives – the most courageous would talk to them and the most patient of those would be rewarded with bear talk in return. Surprise encounters between man and beast usually involved tremulous greetings, apology, explanation of intent, and hasty retreat by both parties.

In Spanish California a favorite spectacle during fiestas was to pit captured grizzlies against the wide-horned semi-wild bulls of the rancho herds. There was a chance the bull could win early on but in a long fight the bear was certain to be the victor. Of encounters between grizzlies and mountain lions the outcome was not so predictable with the cat's agility and famous screen-door grip frequently awarding the latter at least a draw. The southern California grizzly population was probably at its greatest during the Spanish period because of the influx of domestic animals. After Americanization in the 1840s the grizzly was much more aggressively hunted; the last of them alive in captivity, "Monarch," was captured on Mt. Gleason in 1889 and died in San Francisco in 1911. The last Los Angeles County grizzly taken by a hunter was shot in 1894 in Big Tujunga Canyon. Both Big Tujunga Canyon and Mt. Gleason are familiar landmarks in northern Los Angeles and are rewarding destinations for day trips, Gleason having a beautiful Jeffrey pine forest on top and Big Tujunga a perennial babbling stream. Both also have ghosts of California grizzlies.

In 1953 the extinct California Grizzly Bear was designated the State Animal, an act following by a hundred years the painting of a grizzly on the first flag of the new California Republic, in a time when the grizzlies were common, as familiar as buffalos and passenger pigeons.

WHEN WE WENT ON hikes in the hills we made up folklore on the spot. I am not aware of any indigenous folk tales about the Santa Monicas – no mountains shaped like sleeping maidens. I guess the need for mystical union with the land is pretty strong and knowledge of places and things in the landscape and of previous inhabitants is important. At least it must have been to us. Most people seem to forget this bond as more immediate needs inhabit and complicate their lives. I guess if we are to survive in a workaday world we can't keep track of everything.

We knew that the tall grey-green shrub was a native tobacco so we called it Indian Tree Tobacco (no one I know ever tried to smoke or chew it). The dry stems of another plant had a tasteless white pithy insides which we picked out and chewed and called Indian Chewing Gum. We were oblivious to any real signs of native inhabitants and although the indigenous population of Los Angeles was relatively great, most permanent habitations admittedly were closer to perennial streams or the ocean. The shale of our part of the Hollywood Hills is much too soft for us to have fashioned mock arrowheads out of. There were in the rocks, however, obvious signs of much earlier inhabitants.

Except for the very tip, the eastern end of the Santa Monica range – called the Hollywood Hills – is composed of soft light-colored shale. Most of the shale is easily broken into thin flakes, especially in the summer when the rock is dry. The break is along the bedding plane and corresponds to surfaces covered up, layer by layer, as fine silt was deposited in a near-shore marine environment ten million years ago. We'd pick slabs off a chunk of this shale and throw it like a Frisbee for the satisfying explosion into white dust when it hit a canyon side. On each bedding plane there was a good chance of finding a fossil. Various molluscs were fairly common; fishes were the prize. I never found one larger than about two inches but I have seen fishes up to a foot or so long built into stone walls and mantlepieces. All the hard parts of the fish were there: all the tiny bones looking like a Japanese print in hard shiny brown on white, and just as two-dimensional. There were leaves in the bedding planes too, and what we identified as fish scales. I swear I've never seen a fish scale lying on a beach all alone or on the bottom in a "near shore environment" but that's what they looked like to us.

BRIAN WORKED for the city at the Observatory overlooking downtown Los Angeles and in 1963 Brian told me that he had heard that a horse in Griffith Park had been killed by a mountain lion. Now a mountain lion needs five or ten square miles to supply the number of small animals it needs in order to eat. The hills of Griffith Park are wild enough and may be sufficient to shelter and feed a mountain lion but they have been isolated from the rest of the Santa Monicas by residential areas and highways for more than fifty years and I doubt that Griffith Park could support a breeding population of lions, which leads me to propose: (1) to go to the Santa Monicas and photograph a mountain lion, anywhere. I could tether a goat to a tree and hide downwind with my telephoto lens. (2) I want to get a picture of a mountain lion in the rosy reflected glow of a sunrise silhouetted against that old familiar prairie-school skyscraper of a City Hall. (3) I want to hide in the rocks above Cahuenga Pass and take a picture of a mountain lion on the Mullholland Drive bridge over the Hollywood Freeway tiptoeing home to Griffith Park with on its face a wry mountain lion smile.

ANDREA HAS FRIENDS who live in Frogtown, not so named because of the national origins of its human inhabitants but because of the amphibians in the long ago swampyness where the Porciúncula spread wide before slipping over bedrock in the narrows behind what is now Silver Lake and

Elysian Park to flow past the beginnings of downtown. After disastrous floods in 1938 this area was channelized and paved for the most part. In the spirit of groundwater recharge a lot of the floor of the concrete-walled channel was paved instead with cobbles and boulders and the silt trapped here supports vegetation and wildlife in abundance. Winter floods scour clean the rocky bed in some years but by the following summers the sandbars are always cloaked in brush, predominantly willows, tules, and cattails.

I've seen lots of ducks and plovers there and fishes, minnows of one kind or another, and little swimmy slug-size things that I fantasized were leeches (African Queen) and may actually have been. Because of underpass access by bridle path to wild Griffith Park I suspect that raccoons must hang out there and maybe even lost deer. There is also a large resident population of rusting chrome supermarket carts. The water is usually clear, warm, and swift flowing.

A mile or so upstream, opposite Forest Lawn cemetery, where the river is entirely paved, more groundwater recharge facilities have been built. Here where the channel is almost a hundred feet from one vertical wall to the opposite an inflatable rubber dam has been erected. When the water volume is appropriate the normally flat dam is pumped full – of water I suppose – and the river is diverted into several unlined basins where it rapidly percolates into the gravel of the flood plain. Actually, most of the great San Fernando Valley is a superb aquifer because of its geologic structure. The east end is particularly good for underground storage because the valley bottom is composed of coarse gravel and cobbles eroded from the igneous San Gabriel Mountains; very porous and hundreds of feet thick.

I believe I have heard or read somewhere that the L.A. Flood Control District manages to capture for storage in natural aquifers about 85 percent of the runoff within its jurisdiction and I'm equally certain that the City of Los Angeles for many years has drawn a fairly steady 10 - 15 percent of its total water supply from wells in places like Frogtown, above the narrows that channel the Porciúncula past the beginnings of downtown and the village of Yang Na.

ONCE I JOINED in battling a grass fire on the hill between where we lived and Beverly Glen, behind the big white house we could see from our kitchen. In late summer and fall any whiff of aromatic smoke portends disaster and hill-dwelling Angelenos become sensitized to the smell of burning eucalyptus, chaparral and oatgrass. In fire season wind can be a powerful and unpredictable enemy but a fire on that fine still day must have looked like easy pickings for adventure. I joined other kids from the block, hiked up the road and entered the fight. Of course the real firefighters were there before we ambled up and the potential of the fire to spread was slight. The city's firemen were at their finest that hour – they guarded against any new breakout and let us volunteers have the hot spots inside. Garden hoses couldn't reach the scene so buckets were used but the most fun was had by those with pump-up garden sprayers. We'd fill the tank at the nearest neighbor's faucet, pump in air, and set the nozzle for the finest single stream. A spray would have cooled the smouldering brush below the combustion point more efficiently but we were there for fun. Several sports were invented on the spot: drawing pictures and names in the ashes and hitting glowing embers from a distance. What counted was distance and accuracy and the most prestige was gained by the one who could put out flames with a quick draw and only the tiniest burst of water. The sprayers became submachine guns, sniper rifles, flame throwers, and bazookas and we calculated trajectories and range like artillerists. The firemen had packed up and were long gone by the time we finished our battles, sooty and wet and triumphant.

IN THE LATE FORTIES or early fifties we'd get up early early in the morning occasionally to watch atom bombs being tested. This was when the bombs were exploded above ground in the range north of Las Vegas. We'd drive up to Mulholland on the ridge of the Santa Monica Mountains and at the appointed time look across the awakening San Fernando Valley and over the sleeping San Gabriel Mountains. We'd look toward the northeast in a very straight line across the Mojave Desert and there would be a small pure white flash beyond the mountains but in a different place than the dawn which was also beginning to happen and then just as soon as it was sure we had seen it the flash faded and only the other dawn remained. And then we'd drive back down the hill to have breakfast and at about the time we had cereal poured into our bowls we would hear a boom from more than two hundred miles away in a very straight line and the boom was just like the flash. It was delicate. And it was just for us. And it sounded exactly precisely just like the sound made by an atom bomb very very far away and very long ago.

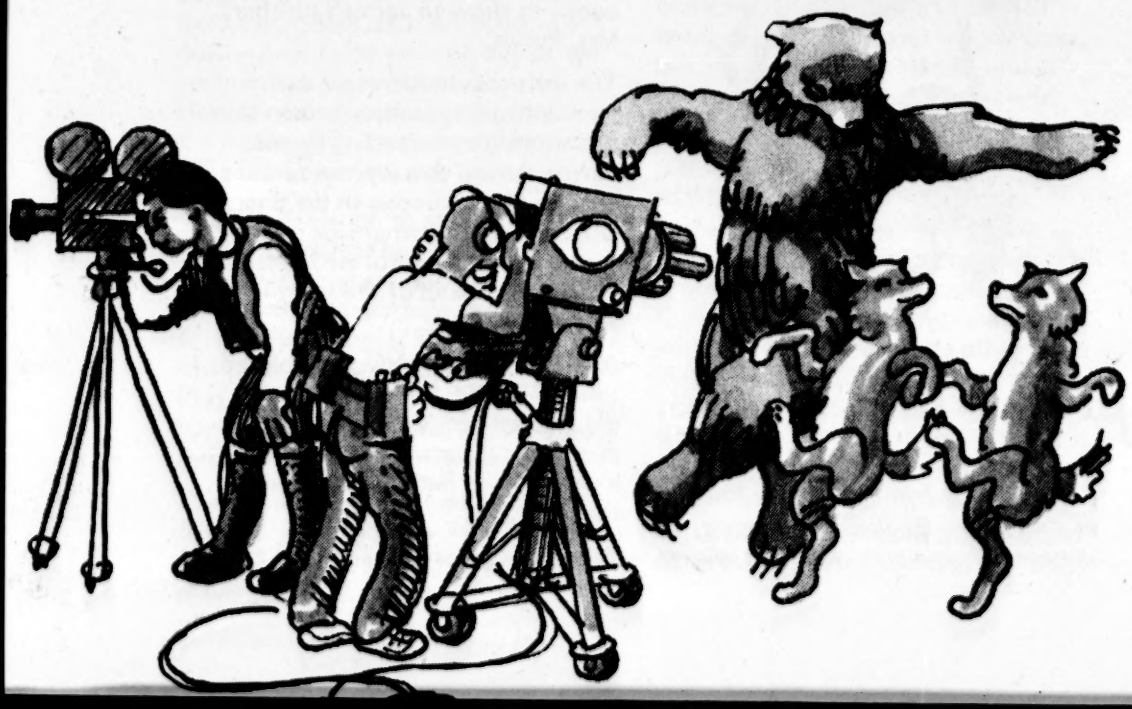
I DON'T KNOW WHY MY antecedents came to Los Angeles. Both my parents arrived as teenagers with their parents during the "boom of the twenties," one of several in the city's history – Los Angeles is a magnet for people willing to trade stability for opportunity. Just as it was important to make up "folklore" about the hills I was hiking in while a kid, I now miss knowledge of, and continuity with, my ancestors. None of my childhood peers seemed to have any more L.A. roots than I, so not having anything to compare, I didn't miss my own. So now my brother lives in Maine and I in northern California – another generation without geographical roots.

Just as much as I am attracted by remnants of the "subtropical paradise," the Mediterranean climate, the scenic variety, and the beaches, I am repulsed by the smog and the distances. This is not to say the air quality and the traffic drove me out but frustration in a marriage I was unable to maintain and a sudden job offer elsewhere broke the bond and once broken by a year or so, it was impossible to repair.

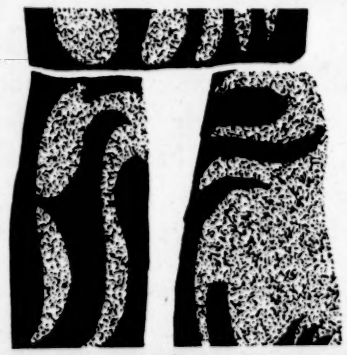
As a loyalist I stood ground while the neighborhood went to hell, or just went. By the time I was ten many of the streams had been channelized and paved and apartments had begun to replace neighborhood truck gardens; by twenty, all but tiny relics of the orange, olive, and walnut orchards were gone, and shopping malls were beginning to sap the vitality of small businesses on the main streets; by the time I was thirty the Santa Monica Mountains, constantly threatened, were under serious physical attack by developers, and any individuality in the myriad local downtowns throughout the basin was badly eroded. A city planning director has admitted that the paving of the L.A. River and its tributary washes was one of the worst planning misjudgments to befall the city, both ecologically and aesthetically, and whose value as a green binder for a notoriously uncohesive city is just now being realized. The freeway network, superb in unforseen ways – as megasculpture and as locus for a community all its own, is the right scale but offers no relief; too much concrete, too much movement.

And yet – State and Federal agencies are knitting together a National Recreation Area in the Santa Monicas and are receiving gifts of land from long-time owners and potential developers who finally realize the value of wild open space. And loyal friends of the Los Angeles river fought hard and long to have several miles of the stream protected in wildness as part of a new roadway project – and won, only to have to renew the battle to prevent the now wild stream from being developed into facilities for the 1984 Olympics – and won again. And public access to the beaches is expanding in recent years after contracting for decades. And in town, the legacy of the early seventies, the declining economy, and gas prices that force at-home recreation are stimulating growth in vegetable gardening and even small-livestock husbandry.

These, and the continuing influx of Asian and Mexican immigrants, may yet reverse the trend toward homogeneity and could make the urban ecology as healthy as the wild – and may also preserve much-maligned Los Angeles as a place to watch. ■

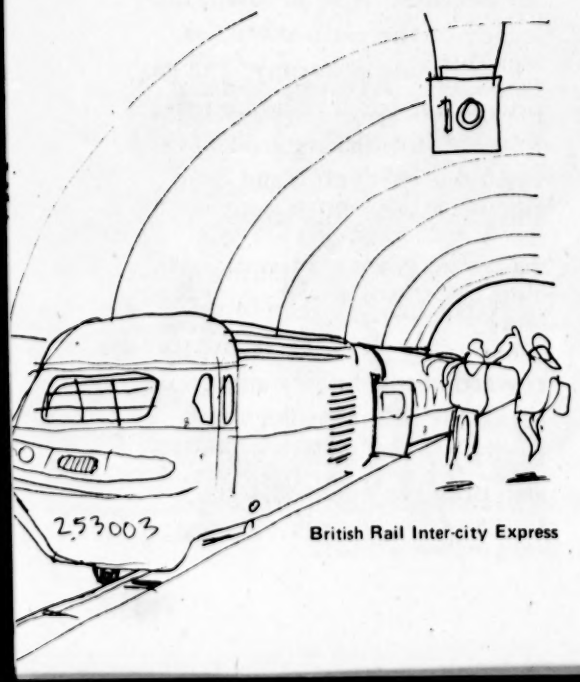


Stonehenge is in Amesbury. Excavations suggest it was begun by the neolithic Windmill Hill culture as an outer ditch and bank, 320 feet across, somewhere around 2800 B.C. The various stages, including the familiar raised stone lintels were built over the next thousand years. Various sun and moon alignments of the stones with points on the horizon make it an ingenious calendar. Though the Druids may have been using it when the Romans came to Britain in the 4th century B.C., they did not build it.



AMESBURY

by David Wills



British Rail Inter-city Express

Now I live on a houseboat at Gate 5, Sausalito, California, but once I lived in Amesbury, England. These are sketches from a visit there last winter.

OFF TO AMESBURY where, I am told by my jolly good friend, Jamie, 'They have built a nuclear missile silo at the aerodrome and declared the area a protected district of scenic beauty. It would be one of the first places to be wiped out in time of war.'

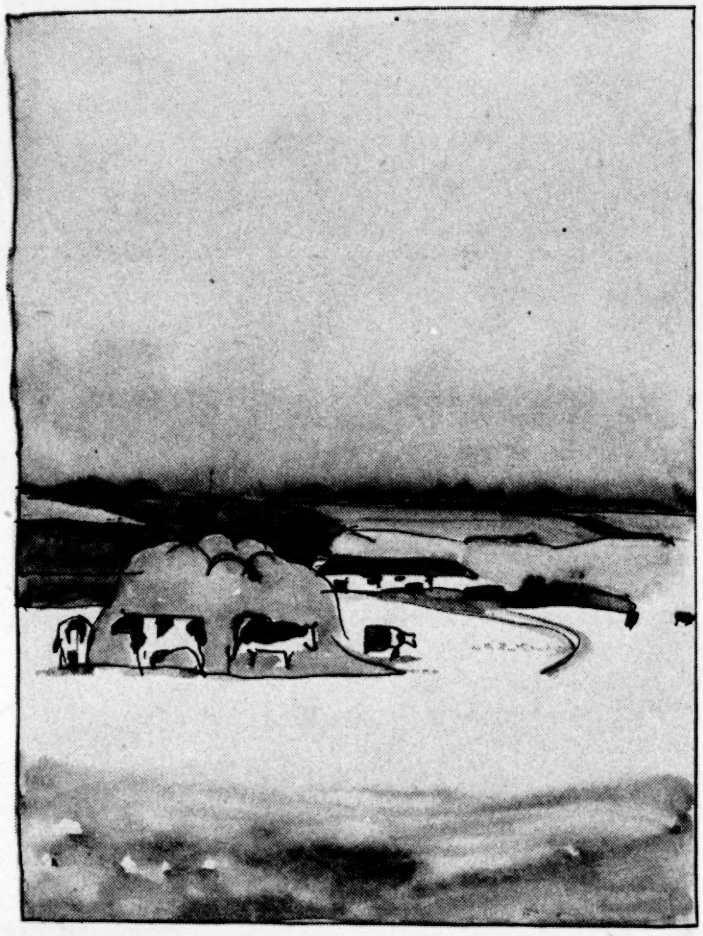
I went to Amesbury on a train, up early at 7:30 or so, made two boiled eggs and buttered bread, washed up the dishes from the young David's previous night's meal, they clattered a bit and Deva, the short-tempered person, growled in to complain. I said, 'Sure,' but thought, 'Sod you.' I left with my tartan holdall full, clean underwear done the day before at the laundry and my sketch books to show to Jamie's mother, Mrs. Purvis.

The train was moderately dull, a man with gritty, sallow/brown skin and squinty eyes reading **Record Mirror** talking to a woman reading rubbish about success in the charts. Opposite on the other side of the carriage two beautiful well-dressed executives talked of life in an ad agency.

A huge tumulus, a bridge, a pill box (one of 25,000 built in 1942 – defence against Nazi invasion), a puddle by a water trough, mole hills, a perfect haw hedge. Winchfield that was.

Telford supervised the cutting of

The Purvis house



Goose Land Furlong and Cow Leas

the embankment, now it's covered with rhododendrons in profusion.

Heather, Jamie's beautiful sister, will be waiting for me. With a car, we will drive off into a purple and green dusk never to be seen sane again, roaring with memories, life as an art.

A young boy in the crowded compartment asked, 'When will British Rail go fast?'

I was at the wrong end of the train to get out at Andover quickly, the last off at the station, I ambled down the platform. The embankments and chalk cliffs, the bushes, birds and fields with (often uprooted) hedges, houses with thatch, naked trees, black spotted with a rookery, wet bends in roads, hollows in fields puddled by the rain, all these I saw from the misted, rain dropped window — now I was walking out of the station into my real dream world. Heather waited outside, like most she had a new wrinkle or two around her keen green eyes, ain't we all?

Heather drove me to see the sights. We walked in the garden of the Antrobus Hotel drinking port wine. The Beatles stayed here when they filmed 'Help!' up at Tidworth. I saw three military types, cold hard eyes, noses with right angles and toothbrush moustaches — they seem to grow that way round Amesbury.

The Purvis house was designed by Sir Oliver Lodge, the complete English eccentric, who lived for awhile in Camden Town and taught science to young women at Bedford College, where he was obliged to be accompanied by a chaperone. Later he researched the 'ether,' the 'nebulous jelly' theory of interstellar communication, was advisor to Prime Minister Baldwin's government and liked to wear carpet slippers to cabinet meetings.

There are fewer trees than there used to be, especially in the woods where elm disease struck badly, the fir tree gone at the end of the yellow gravel drive, fewer shrubs, fences but more vistas, openness and careful tidiness. It was not sunny — it seldom is.

I ran down to the River Avon, down the terraces dug by Celtic tribes. A clutter of dead and fallen ivy covered branches, trunks, and a variety of undergrowth hampered my progress, but I crossed to the islands, which were satisfyingly reeded, rank and greenery yallery.

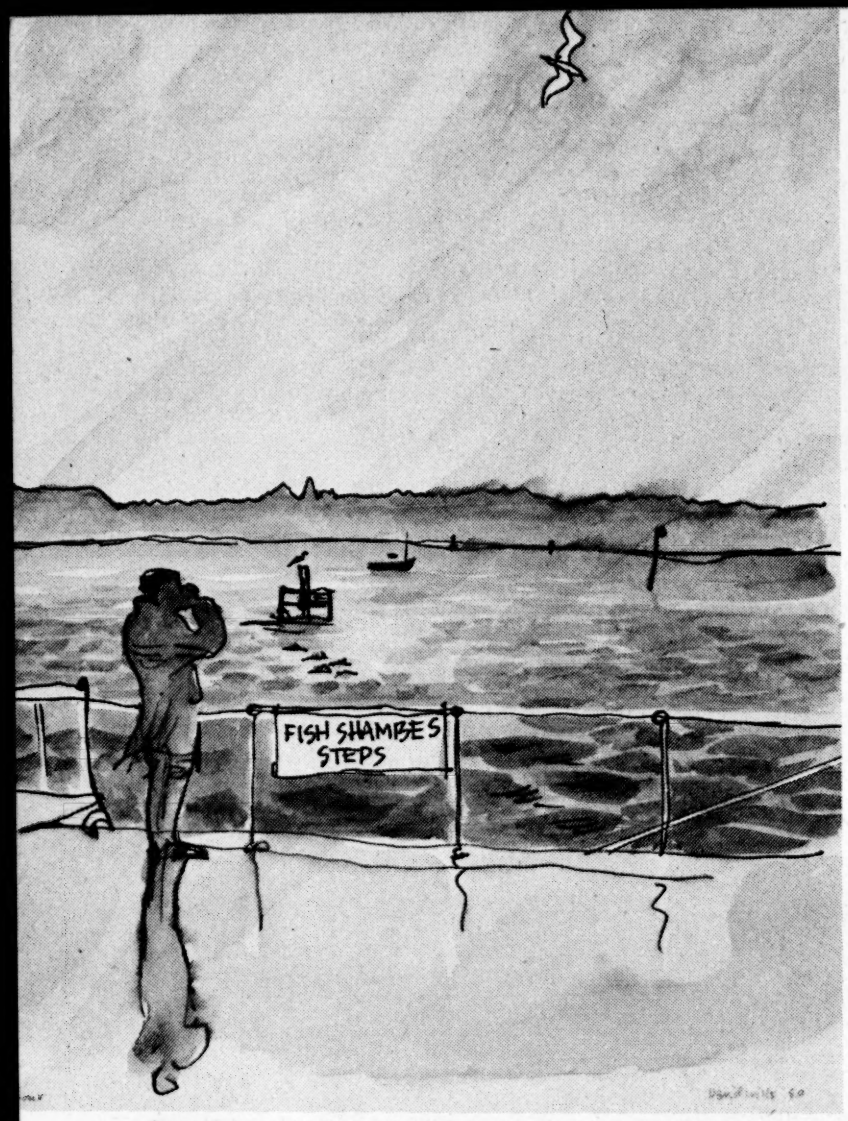
Sitting in Mrs. Purvis's class in the middle room for sitting, the fire gutters in the grate with its one-piece stone hearth, 17th century brass kettle rest, a very polished little brush, two toasting forks one with a brass crusader, the other with H.M. the King 1910-1935, two pokers, and one pair of coal tweezers, the tongs. The rest of the room is in style, complete with French windows for looking out.

In 1928 Sir Oliver built a wattle and daub house for his ill-fated son (he died in the war). As children Jamie, Heather and I used to play in there, so Heather got the key to the chicken wire door and we went inside.

Mary, Mrs. Purvis, cooked good food. I remember the pheasant, the roast beef on Sunday, a spaghetti concoction, bacon and eggs and, 'English people drink tea because they can't afford spirits,' she said, so I had brandy. 'At this time of day?'

For some reason mostly to do with sitting next to Heather I went to Roman Catholic mass on Sunday morning, the fat, green-robed ex-monk Irish priest neatly folded the napkins and while I missed out on crossing myself and the wine and biscuits, I did have my neck blessed by an obscure saint, good theatre. Not a word of Latin, but there were candles. The blonde 8-year-old girl in front smiled at me.

A jaunt to the 'Black,' the Black Horse pub in Durnford ('hidden-ford', mentioned in the red book of the exchequer in 1166) was mellow. The local bus couldn't get through because the weekenders were having a party at Lord So-and-so's and blocked the street — so we parked in the lane to the mill. Heather, who works in real estate selling country houses, has quite an inquisitional manner and closely questioned the new bar keeper. The daughter of the house played darts, the landlord said he used to work up at what is now the missile base, 'Not like it used to be — no morale, they just



Poole Harbour. In the distance is Brownsea Island where the Boy Scouts were founded. The trees on the far left of the island are taller because the trees to the right were accidentally set on fire by a loose Boy Scout.

Aunt Rene used to manage an ironmonger's in Cwmfellinfach, South Wales.

don't care about their work anymore.' There were new horse brasses over the red stone fireplace, the old pub just wasn't the same somehow . . . We visited Stonehenge by no moonlight. The stones stood, lit by passing cars, seen through barbed wire. They did not move. A shooting star briefly appeared.

Later I went for a walk up the road in the drizzle with Mrs. Rye, the butcher's wife and grandmother of the Judd family band. She said she was in the big house down the road in West Amesbury, Antrobus House where the Squire used to live, 'You know, just to look.' She'd lived there forty years and never been inside before.

The young Lord Antrobus had recently come back from South Africa and sold off Amesbury Abbey as a nursing home. According to medieval pilgrim lore Queen Guinevere is supposedly buried there, her lamentations sung by a choir of virgins in perpetuity. Maybe they'll turn down the volume for the old folks.

Country life and scandal is so much more real than in the city it seems where folk get murdered and it's just another event. In Amesbury the fact of my going to church with the Purvis family is instant news.

One of the neighbours came by, at the Rye house, just had a divorce, her former husband and his new lover laid in wait for her on Saturday and beat her up, hospital case, had her photograph taken in the police station, very swollen she was. She's going to sue. The family sat around the fireplace and comforted her.

All this in a small town, well it *was* a village but the parish council just voted for it to become a town, five votes to three, and they never even asked the people who lived there if that's what they wanted. Now Amesbury can have a mayor, if they can afford it.

Then I was off to Poole, about 30 miles south of Amesbury, where Aunt Rene had baked a cake. A few days before Christmas, it looked as though we were in for a snow white Yule, but the big flakes settled long enough to throw a snowball or two, then melted.

Aunt Rene was in fine spirits — McGreggors, Hennessy and Sainsbury's apricot brandy being her choice. Our teetotaler granddad would throw a fit if his ghost wafted by, for her to be drinking a bottle of whiskey a week in her tea is not in the family tradition, but it does wonders for her disposition — gone are her continous laments, now she's quite a cheery seventy-nine year old with a big old rambling house.

Every now and then, she sells off the heirlooms and reduces the clutter, but she still has more furniture than a Haight Street second-hand store. In every drawer is a collection of bric-a-brac that would grace the tables of an interesting flea market or two, collar studs, invoices from 1958, hair grips, curlers and tongs, three pairs of pruning shears in the kitchen cabinet, enough clothes to equip six episodes of Monty Python's little old ladies and in the TV room on top of one of three treadle sewing machines is a ready reckoner giving 97½% of four pounds, two and ninepence farthing.

Aunt Rene couldn't do up her garters, she fiddled around and gave up, shuffled out to the kitchen across the layered carpets with her nylons down around her knees in a rumpled ring. She may be stooped and her rheumatics make it difficult to bend, but can she sing. 'I can't reach the top notes like I used to though. Welsh people can sing better because they get all that exercise walking up the mountains.' She has regular visitors who come to see her, who seem to enjoy listening to her ramblings. 'I don't drink with my meals until after I've finished eating,' and so on.

I went for a walk with my brother Peter, who had arrived in splendid style to see a redwood tree on the other side of Cole's Bay, climbed a fence and jumped a ditch even. On the way back

Peter Wills, droll vegetarian

we passed through a Poole Corporation dump with signs posted warning of the penalties for recycling the trash. A family of Gypsies had tethered their pony nearby while they ignored the sign and professionally sorted the TVs from the plastic buckets. As we came by the hankie-hatted totter appeared and asked us 'Anybody there?' before he and his son carted off another load of legally protected corporation rubbish.

On Christmas day in the afternoon, I walked by Poole Harbour thinking I might find a boat to borrow, it being a roaringly colourful sunset painted by Turner. The world's second largest natural harbour (so they say) was as flat as a desk top.

Wandering down by what used to be the wharf warehouses, where curved roads followed the ripped-up railway lines, I spied a dirt road leading down to the harbour, at the other end I could see boats and as I got closer a man bailing water out of a large wooden affair.

'Fine way to spend Christmas day,' I yelled.

'O, I don't take no notice a Chrissmuss, got on better things a do.'

Weather-lashed face and cheek bones cast shadows on his jaw, he was a lobster fisherman who started off with a dinghy, and with hard work had now a small fleet, the boat on which he was working being the latest – a fifty-foot, ex-Navy job.

Well, that was Christmas, New Year coming up and parties promised, getting in touch with old friends.

From Poole in Dorset to Waterloo Station in London with Peter my brother who is reading Gay News, which he leaves behind for people to find. Outside the English countryside whizzes by, the correct colour green with suitable hedges, ditches of ancient origin and trees with no leaves. We pass a housing estate that spread itself about, dinky houses with pitched roofs, passed a grey-stone country house with walled garden set in its acreage of ancestral grounds. The sky is a matching permanent grey today, the sun gets no higher than your shoulder at midday in these northerly latitudes – but it is not so cold with an on-and-off-again drizzle. Last night the gale blew and in Scotland there was an earthquake of 5 on the Richter.

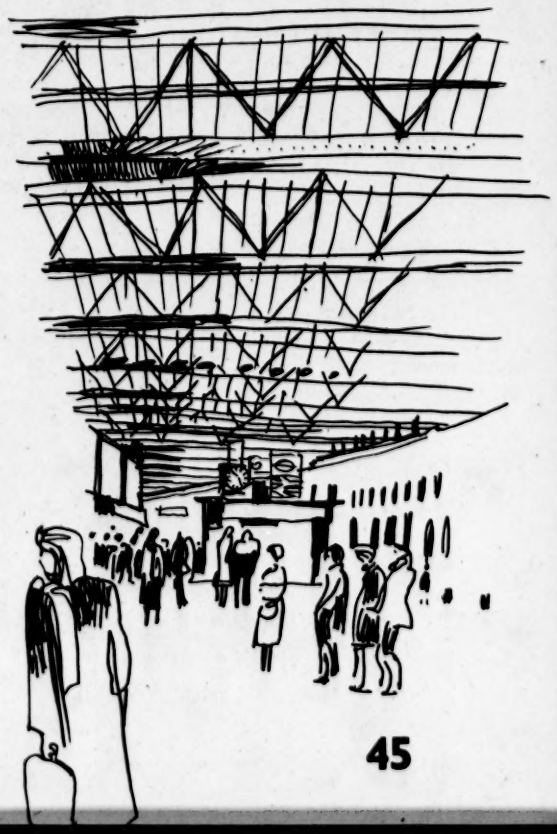
The train journey came to a busy suburban commuter end with a cheery black Londoner offering salutations and greeting to 'the lovely miss' and 'hello and welcome to London' to one and all. It was raining.

In my attic coziness with large comfy pillows and tent-like ceiling covered in tie-died sheets that touch my head at a fully stretched crouch. The family Wills' residence has moved from genteel suburban Teddington to the slums of Camden Town in North London, where two trains loaded with nuclear waste pass by on the North London line three times a week. What a come-uppance.

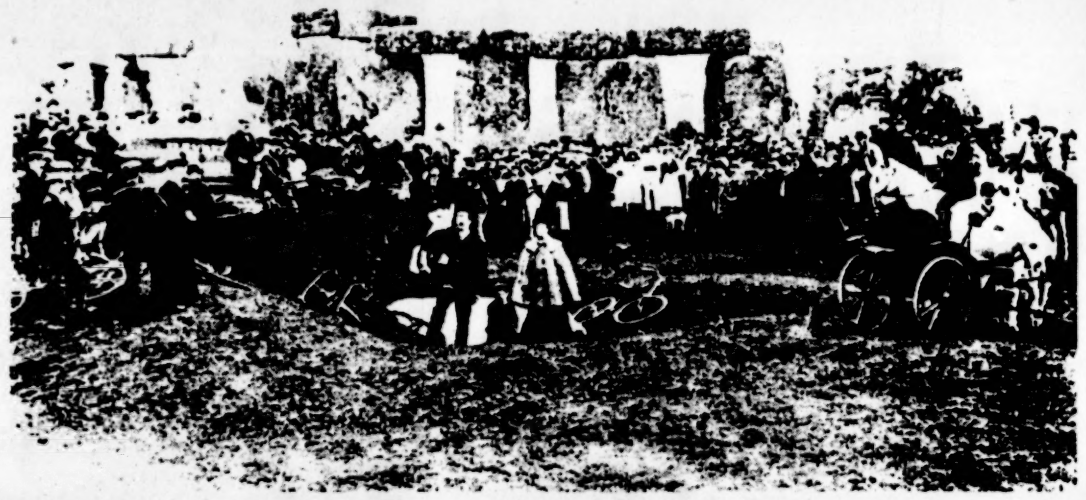
I spent New Year's night in bed, awoke sometime in what may have been '80 or not, no parties, austere. So was Christmas, somebody asked, 'Turkey and Telly?' I said, 'Chicken and Radio,' which was kind of true. ■

The tree on Agar Grove railway bridge, Camden Town. It is lightly irradiated by the nuclear waste passing by three times a week on the way to the nuclear fuels reprocessing plant at Windscale in Cumbria.

Waterloo Station plays stirring music for the rush hours now, on a speaker system installed for homecoming Tommies.



Carved roof bosses in Amesbury Church. Until recently the church was dedicated to St. Melor, an obscure Celtic pagan head-hunting cult figure from Brittany.



Stonehenge, a natural venue for many local gatherings. Nowadays a midsummer free rock concert annoys the neighbours.
All photographs on this page from *Amesbury*.

The Amesbury Millenium Lectures

Amesbury

Any community that cares for itself deserves the sort of attention these two books give to Amesbury, England, the kind of loving intensity that comes from really caring about where you live. —*David Wills*

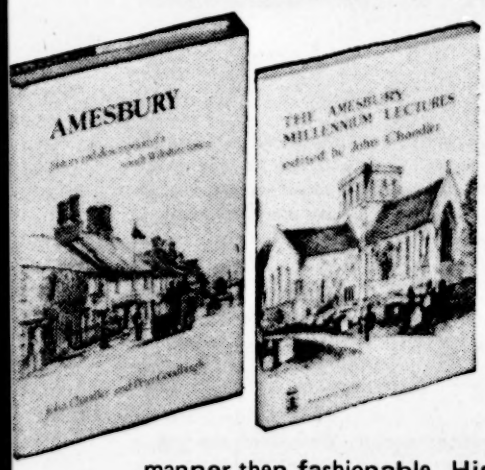
Amesbury
(History and Description of a South Wiltshire Town)
John Chandler and Peter Goodhugh
1979; 136 pp.

£6 (about $14 or 42 International Reply Coupons) postpaid

The Amesbury Millenium Lectures
John Chandler, Editor
1979; 87 pp.

£2 (about $6 or 18 International Reply Coupons) postpaid

both from:
The Amesbury Society
34 Countess Road
Amesbury, Salisbury
Wiltshire SP4 7AS
England



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The personalities of the lords of the manor naturally made an impact on the people of Amesbury. The third duke of Queensberry seems to have been a typical eighteenth-century landowner — able, autocratic and intent on improving his house and estate in the manner then fashionable. His wife Catherine, or Kitty, wild and beautiful in her youth, settled down to a middle age of decided eccentricity.

She took pride in being the patron of poets and other literary men, including Pope, Swift and John Gay, who is said to have written much of the **Beggar's Opera** in the grounds of Amesbury Abbey. That opera was so successful that Gay wrote a sequel, entitled **Polly**, in which he poked fun at certain influential members of the government. When the play was, in consequence, banned, Kitty made it her business to get copies printed and circulated. For this she was banished from London, and her husband, resigning his court appointments, accompanied her down to Amesbury. Their exile worried them not at all, for the English country aristocracy of that time had no great regard for the early Hanoverian kings, considering them a stodgy lot. Instead, the Queensberrys set up what was almost a rival court at Amesbury, entertaining the great and famous on a lavish scale. Amesbury in the middle of the eighteenth century must have been quite a gay and lively place, and the fact that the Queensberrys were permanently in residence and were running an expensive household must have brought a certain prosperity to the Amesbury tradesmen. In the patronising eighteenth-century manner, the duchess was a charitable soul. One of her whims was to provide the cottagers on the estate with chairs of straw, specially designed to keep them warm and snug in winter.

The fourth duke brought a very different regime to Amesbury. By all accounts he was a debauched old reprobate, whose chief interest in the estate was to make as much money out of it as he could by selling off or leasing chunks of it. He spent very little time at Amesbury and allowed the house to fall into semi-ruin. Horse-racing and the attendant gambling were his chief interests.

—The Amesbury Millenium Lectures

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Holders Road contains houses that are probably unique to Amesbury. Erected just after the first world war by the Ministry of Agriculture and Fisheries in conjunction with the Department of Science and Industrial Research the houses were intended as an experimental examination of various almost forgotten rural building methods and tests of new materials, methods and apparatus.

There were approximately 14 single houses and 18 pairs of cottages, utilising revived old methods, new methods and normal methods of the time. These included pisé de terre, chalk cob, weatherboard with timber frame, brick and concrete. Converted army sectional huts were also included in the scheme, to ensure that every avenue was explored!

Fifty years later they are all, apart from one, standing as firm as ever. That which is lost was vandalised after being left vacant. There is no building method yet devised that is immune to that particular process! **—Amesbury**

Flower Lane, formerly Frog Lane and Tanners Lane. Some of these houses may have used masonry from Stonehenge to strengthen their mud and thatch construction.

The Amesbury cross is unique in being a free wheelhead cross enclosed within an outer ring. (Irish Celtic influence on Saxon craftsman c. 979.) Reconstructed from a drawing in *The Amesbury Millenium Lectures.*

Sun, Moon, and Standing Stones

John Wood writes with good humour and clever insight, detonating ideas all over the place. **Sun, Moon, and Standing Stones** *is the most comprehensive and sane book on a subject — Stonehenge and megalithic astronomy — which inspires many books and more than its fair share of kookery and academic catfights. He carefully considers what others have to say and is good at explaining their essentials.*

One reason for the decline of sun and moon observation at Stonehenge was the change in the weather. Around 1400 B.C. it became wet and cloudy. —*David Wills*

Sun, Moon and Standing Stones
John Edwin Wood
1978; 217 pp.
$16.95 postpaid from:

Oxford University Press
16-00 Pollitt Drive
Fair Lawn, NJ 07410
or Whole Earth Household Store

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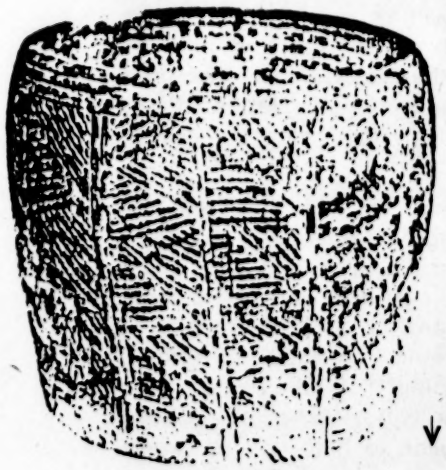
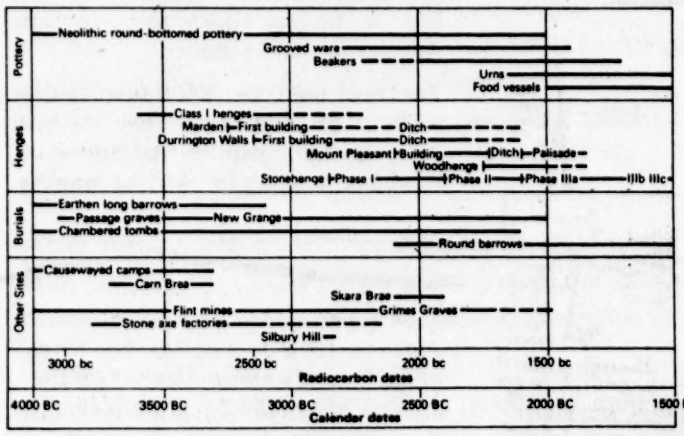
The stones of the megalithic monuments were very rarely dressed. They were either erected in their natural state or split by wedges or heat along cleavage planes to make crudely shaped blocks. This does not mean that the shape was unimportant. One can find many sites where tall, thin stones alternate with fat ones, for example the Kennet Avenue, and it is thought that these are symbolic representations of male and female. The few fully-dressed stones were shaped by light hammering and grinding with hand-held boulders of hard stone, and this tedious method was employed at Stonehenge to make the mortice-and-tenon joints on the sarsen lintels. More often only part of a stone was shaped, with one side flat and the other left rough. Several of the menhirs in the Carnac area appear to have been partially smoothed.

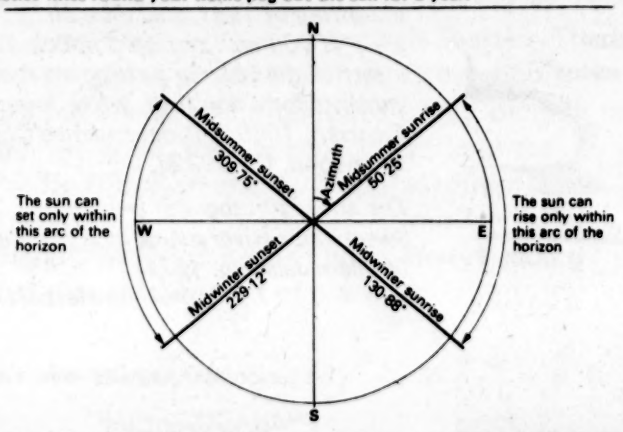


Astronomer priests used flat-bottomed groove ware like this at ceremonial sites from Stonehenge to Lios in Ireland and the Orkneys in Scotland.

An approximate guide to the chronology of the Late Neolithic and Early Bronze Ages.



The limiting directions of sunrise and sunset for a site with the latitude of Stonehenge. North or south of here the symmetry changes. To find the Solstice lines round your home peg out the sun for a year.



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From historical records we know that the climate in the Sub-atlantic, though remaining generally cool and wet, has had several periods when it has been either colder or warmer than average. The best-known fluctuation is the warm spell around AD 1000, which permitted the Vikings to populate southern Greenland. Similarly the Sub-boreal period had its variations, and more detailed studies have indicated when these actually occurred. The growth of peat in raised bogs is one source of information, and this has shown that there were particularly wet periods around 2900 BC and 1400 BC, with a drier than average time in between. Other evidence comes from work on the size of particles in soil. Wind-blown deposits, such as would be favoured in dry periods, have a very different distribution of particle size from other soils; the finer grains, being lighter, are more easily transported. Early Bronze Age soil samples, including the fill from one of the Y-holes at Stonehenge, have the characteristics of wind-blown material, and this is generally interpreted as indicating an unusually dry period at this time.

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The heights of the trilithons, to the tops of the lintels, are 6-1 m, 6-6 m, and 7-3 m. These massive stones have an architectural bravado, and without doubt were meant to impress, yet it is easy to imagine them as a gargantuan staircase, connected by wooden catwalks to allow access to the top of the great trilithon. Perhaps this is how it was during Phase IIIa. It would have been most useful to station a man several metres up in the air when the group was watching for sunrise or moonrise, for he would see the first flash of light before the people on the ground and he would be able to give them ten seconds or more warning of the event. He would also be able to say where on the horizon the disc was going to appear, and they would have had ample time to get into the right position for making observations.

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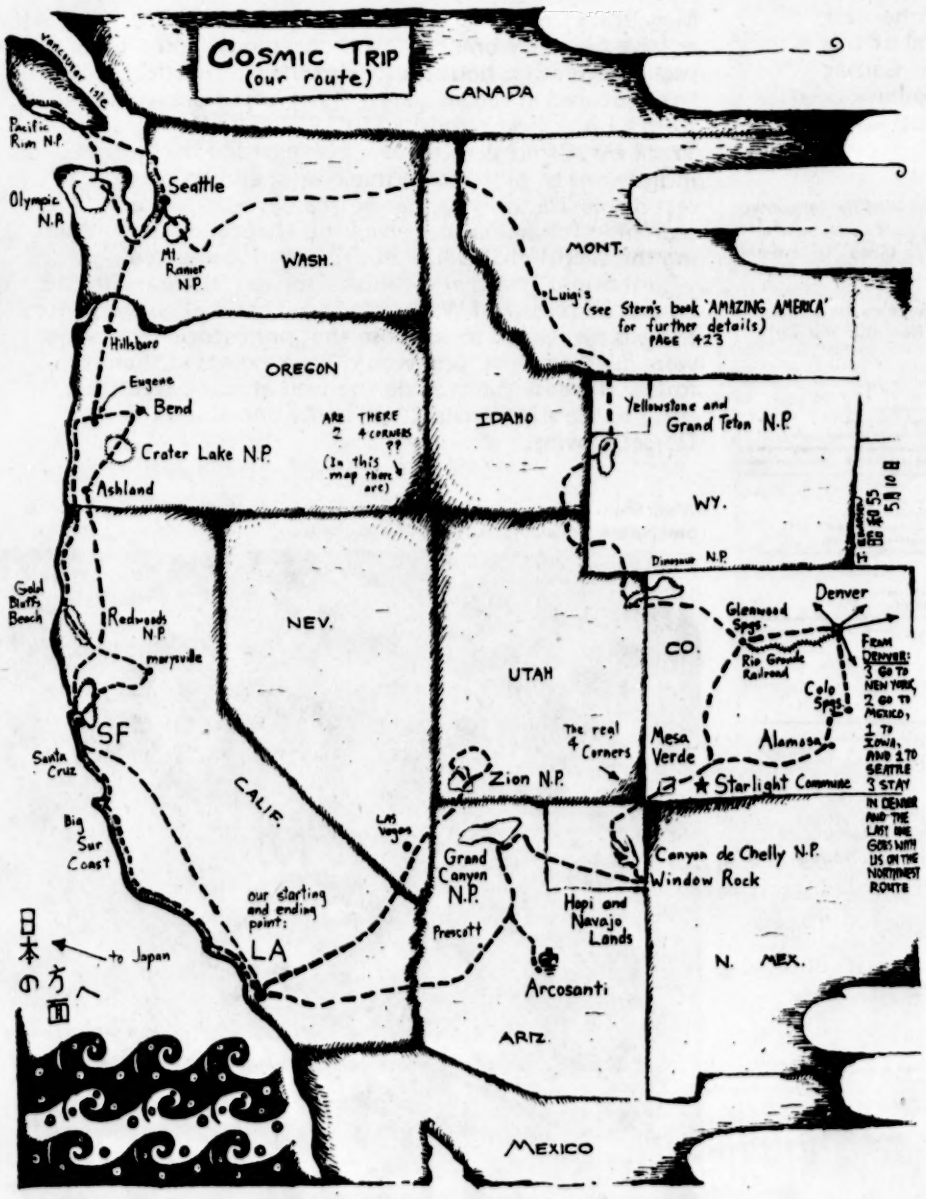
Megalithic monuments have captured the popular interest as have no other branches of archaeology, and a spate of pseudo-scientific books putting forward mystical ideas has appeared in recent years. They often draw inspiration from a book first published in 1925, **The Old Straight Track** by Alfred Watkins. . . . He regarded his lines as indications of prehistoric trackways, and he devoted the rest of his life to investigating the 'leys', as he called them, searching for evidence to back his theory and withstanding the verbal onslaughts of professional archaeologists who thought it was all rubbish. Indeed, there is little to be said in favour of Watkins's hypothesis. To begin with, there is no reason to suppose that prehistoric trackways were dead straight; one would have expected them to follow the easy path, as do the well-attested Neolithic and Bronze Age tracks, such as the one along the Dorset Downs.

When Stonehenge was built the sky was less cloudy than now — the better to observe the sun and moon. North is at the top.

I NEVER THOUGHT TO SEE SO LARGE A LAND

LOOK AROUND. See a few things made in Japan? Ever wonder what the profit from all those cars and cameras and stereos is doing to the standard of living in Japan? One of the results is that it is now possible for many Japanese to travel abroad, and so they do.

As teachers of the Cosmos Saloon, an English conversation school in Japan, we heard many of our college-age students talk about their trips to America. It seemed to us that they were spending twice as much money as was necessary, experiencing only the travel industry's United States, and having almost no chance to use the English that they went all the way to use. Because we wanted to do something about it, the following trip was announced in February, 1979:



Jhon Einarsen and Ed Shorer are planning to take ten Japanese students to America for two months this summer. Because we believe that most tours do little to expose Japanese people to the "real" America we are offering the following unique program.

We will fly from Tokyo to Los Angeles and be met by Ed's parents with two vans capable of carrying all of us comfortably. We will stay at Ed's parents' home for three days where we will see Disneyland and Little Tokyo. Then we will go to see America.

We're not sure where we'll be going, but we will be staying half of the time with our friends and relatives all over the states. The other half we will be camping in National Parks and seeing the natural beauty in America.

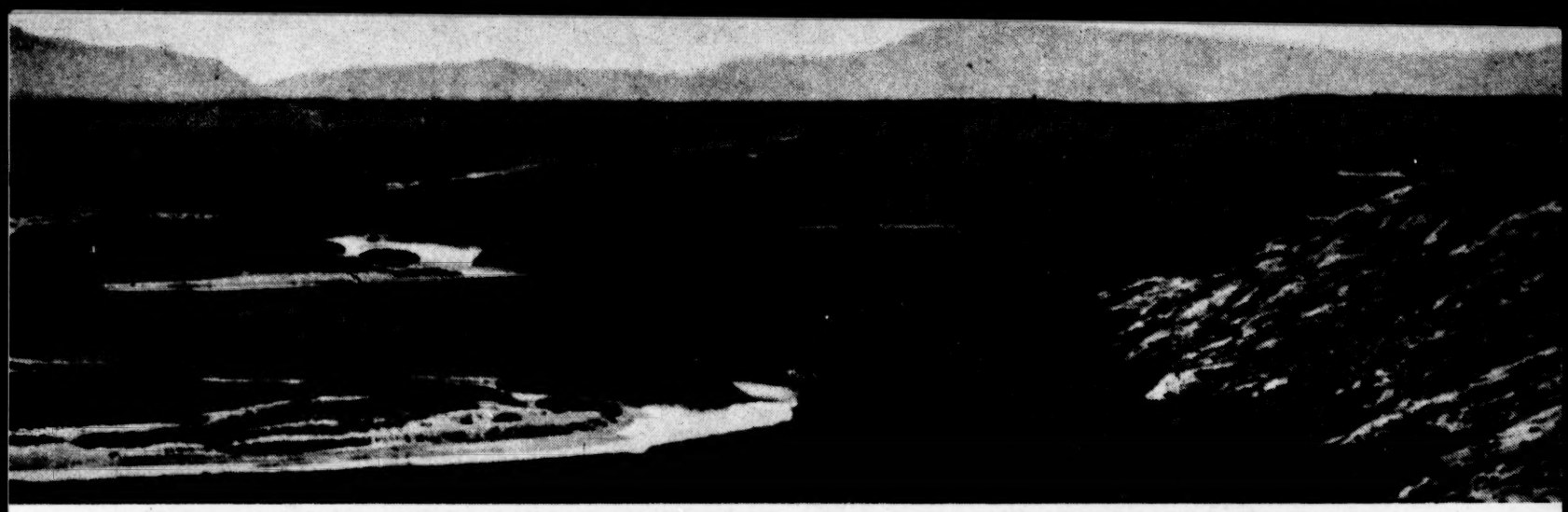
Throughout the trip we will be conducting "on-the-road" classes in both language and culture. Each person will be expected to do some sort of project such as keeping a diary, making a collection of photos, or something that will demonstrate what you will experience. Above all, we want to help you to experience many sides of America, not just a college dormitory in Los Angeles or San Francisco.

The cost will be ¥400,000 (about $2,000 at that time) which will cover airfare, gasoline for the vans, food, and lodging for the two months.

Jhon Einarsen and Ed Shorer went to Japan in 1978 on a college exchange program and were so amazed by the country they have been there ever since, teaching English. They are leading another group of Japanese students on a tour of America in the spring of 1981, this time all girls. If you are interested in being a part of the tour by putting up some students for a few days, write Jhon Einarsen, 1060 S. Independence Ct., Lakewood, CO 80226.

The above photograph is of the Sweetwater River plains in Wyoming. (William Jackson, 1871).

—Anne Herbert



Our group consisted of 11 males, all 19 or 20 years old, who had known each other one year. Most of the group could speak English pretty well, which might not be surprising given the fact that all Japanese students are required to study English for six years beginning in junior high. The problem is that there is no concern with speaking English, only reading and writing it. Hence, there are many conversation schools in Japan such as ours, where the students are learning to not eat bowls of "lice."

We had a few things in mind that would serve as guidelines for the trip. Since the Japanese are extremely time-conscious people, we were always asked about our "plan." So above all, our "plan" was to have no plan. We sort of used Ed Buryn's **Vagabonding in America** as a text and held a few classes on American culture before leaving (things such as using American money, leaving your shoes on when entering a house, etc.).

The homes of our parents, in Los Angeles and Denver, served as our homebases (refer to map). About one month was spent getting from L.A. to Denver with stops in Las Vegas, Zion National Park, the Grand Canyon, Window Rock, Durango, Glenwood Springs and Alamosa along the way. Before we left Japan we spent time collecting some nice Japanese crafts to "pay our way" instead of using money when we stayed at our friends' homes. During those times it was like a Japanese chautauqua, explaining our gifts, teaching the paper-folding art of origami, and telling stories all through the night sometimes.

After one month on the road we reached Denver, and, feeling a bit of tension in the group, decided it would be best to separate for the second month.

Three wanted to stay in Denver (in different places), three went to New York (one flew, two took the Greyrabbit bus), two flew to Mexico and on to Guatemala, one hitchhiked to Iowa, one flew to Seattle, and the only one left stayed with us as we drove northwest towards Seattle. There we met the two veterans of the Greyrabbit and another friend who hitchhiked from Colorado to join the group for a backpacking trip in the Pacific Rim National Park on Vancouver Island. Throughout the trip we had various family, friends, and hitchhikers join us always adding just the right amount of craziness.

Two weeks later (via the Bumbershoot Arts and Crafts Festival in Seattle, Crater Lake, a four-day river trip down the Rogue in Oregon, and the California Redwoods, we arrived back in L.A. where we all met before returning to Japan.

What follows are some selected answers to a questionnaire we distributed to our students (who also became our friends). The questionnaire was in English, their answers are, for the most part, as they wrote them. Minor corrections were made when we felt it necessary, and a few notes were added to help clarify some situations. We think their responses provide a very interesting perspective of both the U.S. and Japan.

What do you think are some of the reasons Japanese go to America?

There are three groups I think. First groups is people who have to go to America on business. As you know Japan and America have strong connections in many points.

Second groups is people who want to study about America and English. For us, the most important country is America. If somebody wants to have a good situation and help Japan to be a better country, I think he have to go to America and see a lot of things.

Third groups is people who are crazy. They spend a lot of money and can't get nothing from America. I dislike them. They believe California is like a paradise. Everything is beautiful, people are rich and open-minded. They don't know what California it is and what America it is. Even when they go to America they don't go to the downtown where poor people are living and always stay at a beautiful beach or good hotel or Disneyland. When they go back to Japan they will say, "Oh California, Oh America, beautiful and big and rich country. I hate Japan, America is best."

I like Japan and America, Japanese and American. Now we have a lot of problems, such as poorness, racial prejudice, pollution, population, energy and so on. I believe we have to think what will happen in the future and what we have to do for the future.

—Norimatsu

If some clothes, songs, or plays become popular in America, they will be popular in Japan. Most Japanese students who go to America excuse that they will go in order to master English. But, in fact they go to America to make boastful talk.
—Tsuji

Because Japan is an island so we want to escape from Japan. Many people, including me, doesn't like crowded places. America is a huge country so we are interested in vastness of America. And America also has a wilderness a lot. We long for it. —Takashima

Were you prepared for America?

I remembered one important sentence each day. I tried to get one book named **Vagabonding in America**. I really wanted to know about the technique of hitchhiking. I always tried to remember coin's name. Nickel, dime, quarter, penny. I was so confused with them. Why don't they have numbers on them? —Uetsuji

How was your English in America? Did people understand you?

When I was in Japan before the trip most of the time I was speaking with people who had been in Japan for a long time. They could understand me and I could understand them. So I thought people in America could understand me, too. But I had forgotten they were hearing Japanese-English in Japan and it was easy for them to understand what I said. —Norimatsu

Unless people speak slowly, I never understand them. When I was alone hitchhiking one woman picked me up. In the car, she was speaking so fast that I didn't understand anything. All I had to do was smiling. THAT IS A BAD HABIT OF JAPANESE. I'M A REAL JAPANESE. —Uetsuji

What surprised/impressed you most about the U.S.?

I was very surprised to know L.A. had such bad transportation. Also, I was surprised to find a lot of lawn in downtown Denver. In Japan we can't find a lot of lawn in cities that have the same population as Denver. If I walk 10 minutes from my apartment (in Denver) I can find a few pretty wide lawns and I can read books, play the guitar, write letters, and play frisbee there. It is impossible to do like this in Japapn. —Norimatsu

OF COURSE KISSING IN FRONT OF ME. AND DOING IT IN BED EVEN BESIDE ME. I was so upset. I couldn't speak anything when I saw them holding each other tight in bed (beside me). Are they never ashamed of that? That was such a strange thing to me. —Uetsuji

How big the U.S. is! —Kuroda

There are many wide roads. Some have 6 lanes on each side, especially in L.A. It showed me that the U.S. is really the country which cannot live without a car. So every family has 2 or 3 cars each. This matter also surprised me.
—Matsumoto

Most of young people including children smoke drugs everywhere. We were not foreigners because there are Mexicans, Chinese, and other people from all over the world.* And yet we met a lot of Japanese students and tourists in the U.S., even in small towns. Also, I want to write about hitchhikers. In Japan we rarely see people hitchhiking and it isn't popularized. —Kitamura

In the U.S. there are many strange and nice foods which are from all over the world, Mexico, Europe, China, Japan, Middle East and so on, which we cannot eat in Japan. There are more Japanese goods, Honda, Toyota, Nikon, Sony, than I thought. There are few railways. —Tsuji

In America many kinds of races are living together as American. I was surprised at the fact that there is no genuine American except Indians.
—Takashima

*Our first impression when we arrived in Japan was, "My God, they're all Japanese! Every one of them!"

Left to right: Uetsuji, Yasuda, and Norimatsu

What things did you really dislike about America?

I was really afraid that if gasoline disappears what shall they do. What becomes of them? They should think how they can save gasoline. If they use trains or buses or subways like Japan, how much gasoline they can save. —Uetsuji

Bad and expensive meals in restaurants.*—Akaki

In New York every apartment has 2 locks. And they have a doorman. Because it's too dangerous. I don't like this fact. Also, each person in New York has a hard shell around his body except people in Greenwich Village. —Takashima

People who are engaged in mission work. They told me they weren't salesman but at last they handed me a book and demanded some money. That is the most hateful thing. They realized I was Japanese and then approached me.
—Matsumoto

*In a Japanese restaurant the first thing you get is a hot towel to wipe your hands and face with, there is no tipping and you are served by people who seem like they've been studying the Tea Ceremony for years.

What are the major differences between young working people in Japan and America?

In Japan many people don't talk about their occupations as much as American people do. I think Americans change their jobs many times if they don't like their job. Japanese people are wedded to their jobs. —Takashima

Most of them seem not to have a big plan in their lifetime. It is the most important difference that American young people take long time to decide his profession or job, and do try and error, while Japanese young people decide his profession very easily and never reconsider when he has begun it.
—Tsuji

In Japan many young people are tend to have the job by which can get the good money in the organized company. Even if they don't like such a way, they work reluctantly for their safely life.*
—Yasuda

In America, even children (10 to 15 years old) had jobs as baby sitting and news delivery. And their parents think it natural. But in Japan if you see child work, you'll found the child house is not rich. —Kitamura

I was surprised to see many Americans who work and enjoy their life. They don't have a lot of money and good position but they are doing what they would like to do in their free time, such as playing instrument, listening music, traveling and so on. I think they are happy, in a sense. Happiness that young working people in America have is different from happiness in Japan. —Norimatsu

*The entire Japanese educational system is geared to passing the grueling university entrance exams (the Japanese have coined a special term for this – "Exam Hell"). Once a student passes one of these exams and enters a university he is virtually assured of getting into a "good" company. Once in the university, the student usually majors in economics, business, science or something else he has little interest in. But it's the "getting in" that really counts. He is usually there for 4 straight years – there's no taking time off from Japanese universities to "find what one is interested in." And once in a company, they are pretty much there for life. Japanese seldom change their jobs.

How are America and Japan alike?

A lot of things came from America after World War II, such as clothes, sports, books, foods and so on. Now our life style has Americanized. We can get most of things that Americans can get in America. But think that is all. Most of our thinking style has never changed. We think and behave in our own way.* —Norimatsu

Many foreigners say Japanese always have a camera on shoulder, but most American travellers have camera also. —Matsumoto

Business in big cities, too many cars, air pollution, modern buildings, McDonalds, etc.* —Akaki

*Our good friend Alfred who has lived in Japan for many years once commented, "If you ever want to get rich quick, just find out what is the biggest, most ecologically unsound fad in America and bring it to Japan before anybody else does and you'll be certain to make your fortune." Sad, but true, we have to agree.

What did Americans who you met know or not know about Japan?

Most of them knew the names of cities that were attacked by A-bomb, Hiroshima and Nagasaki. The black man I met in Denver was very surprised to know my parents had two cars, two TVs, a house with six rooms, air conditioner, piano and electric organ. I said to him my parents were in a middle class, I think Americans don't know about progressing of Japan in a lifestyle.
—Norimatsu

I think there are few Americans who know half as much about Japan as we know about America.
—Tsuji

Describe your most interesting experience.

When I was in a train for Denver with Yasuda and Takashima, I kind of had some little girlfriends. At first, Takashima made a paper crane for one little girl. She was so surprised to see him making such a pretty bird with a piece of paper. She looked at the crane for a while without words. And she said, "Thank you very much." He was very glad to hear that. But after awhile, maybe she showed it to her friends, some little kids came to us. And they asked us to make same crane. Suddenly we came to be busy making cranes. Takashima could make flowers and a crab. The little girls kept saying, "How pretty!" We didn't know how many cranes we made. Anyway, they were very interested in us. Also, we were glad to see them being pleased. So two girls, one is 13, the other is 6 or 7, asked me to write my name down on their notebook. So I wrote. And I asked them to write their names and address down on my textbook. I keep it even now. Maybe I will write them. They were pretty girls. —Uetsuji

Probably I can't say anything but Greyrabbit bus to this kind of question. That's the great experience. When I first saw the Greyrabbit bus, I was afraid we couldn't reach New York. I think Greyrabbit is symbol of American young people. Everybody laid down on the floor and smoke marijuana, play music, sing a song, dancing with music, swim in lake without clothes. The people who got on the bus was very different from Japanese. They don't dress up. We don't have such a way of traveling in Japan. I may say such kind of traveling is real travel.* —Yasuda

*The Greyrabbit is a bus which goes from coast to coast much faster and cheaper than its competitors. Contact them through the Berkeley Ride Center (415 - 524-5404) or in New York (212 - 279-3870).

Takashima, inside the Grey Rabbit

Tell us about someone you met in America that you thought was interesting.

I met an old man near a river. He was in the Navy in WWII and just after the war he went to Japan. He was very surprised to know I came from Japan and took me to his house to talk. In his house he told me experiences from the war for a long time. And at the end what he said is, "Anyway, to tell the truth I didn't want to go to war. I didn't want to kill and be killed. I had my friends, parents and children in America and also Japanese who I killed might have those important people for them in Japan. But the government forced me to go to the war as parents forced me to do something." I've forgotten his name and even his looks. But I will not forget what he said. We sometimes forget the war. The war and tragedy has gone but the memories are still there in people's minds. —Norimatsu

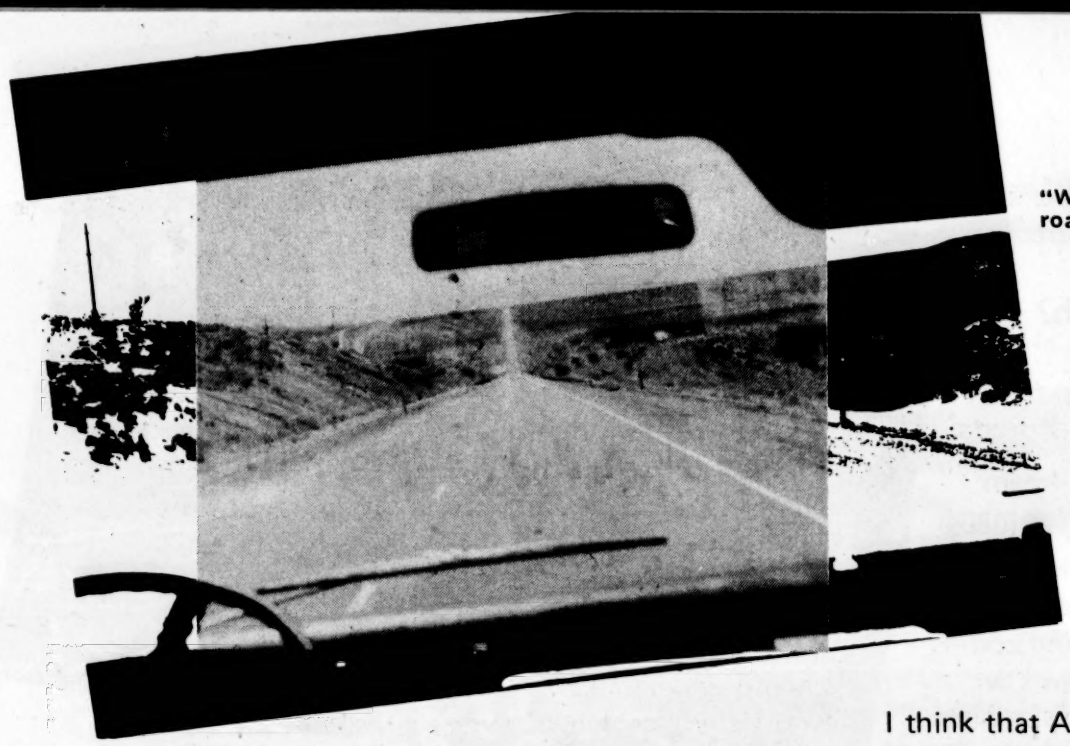
When I went to Iowa state, my pen pal's boyfriend took me to very interesting place. There are some interesting people at that house. The family was consisted of one husband and one wife, two sons, and four daughters. When I visited them they were chatting and were playing their music instruments. After a while, one of them led me to his bedroom, and he took one album from under the bed. I was so surprised to see the album that I couldn't speak anything. There were many pictures of the naked bodies holding each other on the bed in it. They took pictures of their family. In their family they make love and take pictures. Isn't it strange? After I saw it, he showed me a big big model of penis. Maybe they use it when they make love or play with each other. I had never seen that kind of people. American people are so crazy. —Uetsuji

I'd like to write about Mr. Gordon and Mrs. Marjorie. They are very religious, so kind to us. I appreciate them very much. They are the only people that really believe in Christianity that I met in America. It seems strange to me, that though Christianity is spread very much in the U.S., I could not see other people like them.

—Kuroda

Before you left, what were your preconceptions of America? How was America different?

Before the trip we knew America was the strongest country in the world and producing a lot of good things. We also knew 200 years ago America had nothing but



"What a straight road this is!"

people of spirit. I was surprised to see the REAL America. In daytime many people who had no job were walking the streets and sleeping in parks and at night some crazy people were having quarrels on streets. Why are there so many crazy people who have no jobs? Is this the U.S. that the people of spirit wanted to make 200 years ago?
—Norimatsu

My preconception was that America is very huge land. I thought I could see the horizon in most places there. In fact, I was so surprised to see larger land than what I had thought. Every road, especially interstate, was so straight. I said to myself, "What a straight road this is!" many times. And I often saw a mirage. Also, I thought most Americans were big. Car, house, road, supermarket, field, people, food, electric machine, etc. Everything was big. There were very nervous people, silent people, and, of course, there were unfriendly people too. In general American people are not shy compared with Japanese. People in America kiss each other very freely. They make love in bed even in front of me. I was so upset. That was the most different thing from my preconception. —Uetsuji

I was surprised that Indians looked like Japanese.
—Kitamura

I heard America was a very dangerous place, especially New York. But in fact people in America were very kind and friendly except policemen. —Takashima

Many people in America use marijuana. How do you feel about this?

People in America smoke it naturally as if it's not illegal. —Takashima

When I used it, I could understand English very well. —Kitamura

Marijuana is a kind of symbol of Americans, I think. —Matsumoto

What do you think of ecological awareness in America as compared with Japan?

I think that American people are so independent that they seldom have a meeting in their neighborhoods. But recently in Japan, there are many apartments or rental houses, so some people don't even know the name of their neighbors. This case happens mostly in the big cities like Tokyo, Osaka, etc. —Uetsuji

They (most Americans) never throw trash away. Also, I never seen a man throw a cigarette butt away. When I went backpacking with my homestay family we brought many bag to pick up trash.* —Kitamura

*In Japan there is a strong dichotomy between public and private. Japanese houses are probably the cleanest in the world. The private space is deeply respected, whereas the outside belongs to everyone and no one and isn't respected at all. Hence, a common sight in Japan is to see piles of garbage in public places everywhere. America seemed extremely clean.

We found that our students really didn't understand this question. In truth, except for the little trucks driving around picking up old newspapers and rags, and exchanging them for toilet paper, ecological awareness in Japan is next to nil. It seems to us, in terms of ecological awareness, Japan today is where America was maybe 25 years ago — that is, if it's bigger and newer, it must be better, with very little thought given to future consequences.

Give us your thoughts about American Indians.

Before I left Japan, I thought that American Indians are still on a low level of life, and really poor, and that Indian reservation are small, but their level of life was not so low and they had cars, they were well dressed, there were supermarkets and restaurants. And Indian reservations were really large. But Indian reservations looked like nations in the nation. They looked like miniature gardens. Indians were not arrested, indeed, but they don't have enough freedom of other Americans, not physically, but spiritually. I felt a tragedy of history during my stay there. Maybe the reason I felt strong sympathy is that they and we Japanese are very alike (in appearance).
—Tsuji

Give us your thoughts about Arcosanti.* What were they trying to accomplish?

They were trying to live without help from outer system. —Kuroda

Their dream. They want to live in a dream until they die. —Norimatsu

They are trying to make a big city in the middle of the desert. Why is it necessary to make a city like Arcosanti? If mankind continue to waste energy in this way, it will be gone at once. —Takashima

*Arcosanti is one of those amazing cities designed by Paolo Soleri, now being built in central Arizona. It will use passive solar energy. It is designed for a population of 5,000 and is now 3% completed. All funding is by contribution and the work force is voluntary. While touring Arcosanti, we met 2 Japanese girls who had been working there about 3 months. One of them served as a translator for our group.

Top to bottom Akaki, Kuroda, and Kitamura in Oregon

Give us your thoughts about the Japanese girls who were living and working at Arcosanti.

The reason they could do that is in part that they are girls. If they were boys, they would be worried about their future and could not work at Arcosanti. Anyway they are active and advanced for Japanese girls and I envy them a little for living as they desire. —Akaki

I really liked her, not only herself but her idea about education of Japanese universities. She has her own criticism. And the things by which I was really impressed was that she did carry out her idea. She said, "I'm going to enter the university in Arizona after I work at Arcosanti for a short time." Actually quite a few Japanese students want to go to American universities. But they just think, they just wish. —Uetsuji

I didn't speak with her at all. Because at that time I thought it was a shame to ask a girl instead of man. —Kitamura

I dislike them. They said to me in Japanese, "I got rid of Japan because I dislike to go to work everyday." I believe every Japanese have to do something for Japan. We have no resource in our country, so to work, to think and to make is most important. Now what we Japanese have to do is keep our tradition and keep our progress in economy. Every Japanese think about future of Japan and have to do something. Girls at Arcosanti are thinking about only their own life. I don't mind if she live in America forever because Japan don't need that kind of person. —Norimatsu

What is your impression of American women?

Compared with Japanese women, they are independence itself. —Kuroda

I think American women are big, fat, sexy, fat, speaking a lot, not having a beautiful skin, open-minded, easy to fuck (?) (I don't know), always wearing blue jeans, having a beautiful hair, active, loving a sports, loving a music, and thinking very much but running short of knowledge. I want to have an American girlfriend but I don't want to marry them because thinking style is completely different. —Norimatsu

A lot of them are too fat. —Uetsuji

Even married women, they think they are women, not wives, they don't like to be thought they are wives. —Kitamura

They don't make up their face except old women. They wear every cloth. I mean any kind of cloth which they like to wear. —Yasuda

It is true that there are many beautiful girls in America, but I don't like such girls — wearing gay or boyish clothes, self-assertive, self-interested. And I don't like Japanese girls wanting to be such girls. —Akaki

Would you have liked Japanese girls to have come on our trip?

If girls were with us it would be happy and interesting. But if so, we couldn't do such terrible things like camping or for example: when we changed clothes into bathing suits, when we ate lunch along the road, when we went to a nude show, when we didn't take a bath for many days, and when we met cute American girls, etc. —Kitamura

Of course, yes. Because it would be more interesting to travel with girls and we could eat much better meal.* —Akaki

*10 out of 11 answers expressed that the trip was too "rough" for girls and they couldn't do such a trip. We didn't take girls because the sign-up was on a first-come basis, and the men made it there first.

What places should we have spent more time at?

I think every place we visited were amazing. We should have spent time at every places.
—Takashima

At Olympic National Park and Oregon (around Crater Lake) I wanted to spend more time. Oregon was most beautiful place I've ever seen. Crater Lake was so beautiful in the daytime but also at night it was incredible. The stars in the sky were reflected on the water and several shooting stars came out. There were no lights beside stars around there. I could imagine about the stars, for example, when the star was born, or at what time the earth was. Also I felt the universe through the stars and darkness. The air was clean and it was such a comfortable night. —Yasuda

Zion National Park. I love it. It made me mysterious, supernatural feeling. —Tsuji

Describe the funniest thing you saw in America.

The most cars running there were made in Japan.
—Kuroda

I could see a lot of wild animals. They were really *wild* animal. —Tsuji

When I was in Los Angeles and stayed at Ed's. I ran an errand for Ed's mother. I had to buy a regular salt at the near supermarket. At first I couldn't find it. I walked around in that supermarket. And I realized I had to ask the clerk where a regular salt is. So I asked one of them, "Where can I get a regular salt?" But he said, "No English." I was very surprised to hear that. Because I was in AMERICA. PEOPLE SPEAK ENGLISH DON'T THEY? So I asked another clerk. But she just waved her hand. I also asked one of the customers but she shook her head. WHAT SHALL I DO? WHAT'S WRONG WITH MY ENGLISH? I cried in my mind. I asked some more times. And at last one man taught me where it is. So I went to the place which he taught me but there was no salt. I saw just toilet paper and detergent. OH MY GOD! How do they live in America in Los Angeles? I think they have to speak English. They don't have to? They have their own community! They speak other language in it?* —Uetsuji

*Ed's house is in a Spanish speaking neighborhood in L.A.

Describe your favorite meal in in America.

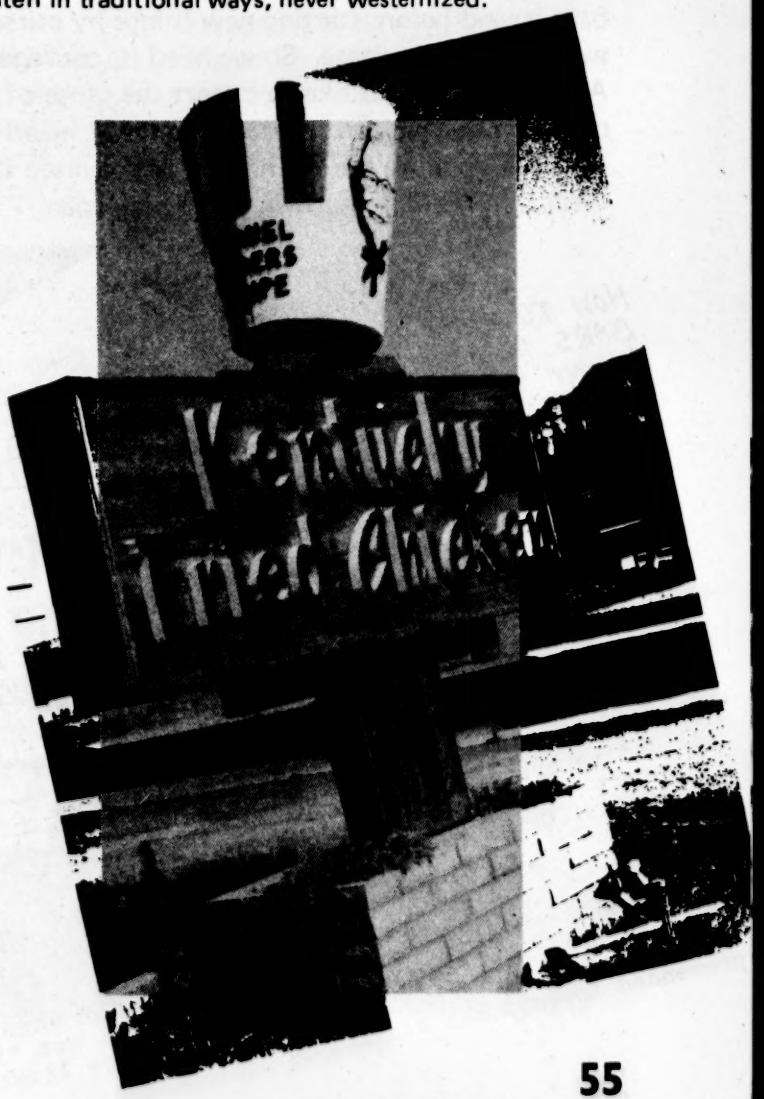
I was surprised that tofu sandwich was so nice. That's beyond my thinking. We should make it in Japan.* —Yasuda

MEXICAN FOODS. We can't eat Mexican foods in Japan. And I couldn't eat hot Mexican foods in Mexico. I like American Mexican foods.
—Tsuji

In America we could get chicken anywhere. And I ate a lot. But I didn't go to Kentucky Fried chicken. That is my mistake. I love Kentucky chicken in Japan, because that chicken has a lot of oil and soft. I had better go to Kentucky chicken shop and compare America's Kentucky with Japanese Kentucky. —Norimatsu

Especially I liked the dinner we ate outdoors. It was great. I've never had the dinner outside in Japan. Because we have no space in Japan.
—Kitamura

*In Japan there are around 38,000 tofu shops, but tofu is eaten in traditional ways, never westernized.



What did you learn from doing your project?

I asked some people about the problem of the whales. After that, I realized that people take pity only on whales, never on whale catchers. Certainly it is not good to catch too many whales beyond the limit number. But I think every people in this whole world wants to make enough money like you. I think we should think about the whale catchers lives if their jobs are taken away. If they lose their jobs now, they might have a hard time to live. People should feel sorry for not only the whales but the people who catch whales. There are many people who kill many animals without reason. That's ridiculous. The whale catchers catch them to make ends meet. I learned that. —Uetsuji

My project was taking pictures of landscape. But I noticed that it's silly to take pictures of them. America's nature is too huge to take a picture by a small camera. —Takashima

What American things would you like to import to Japan? What Japanese things of value would you export to America?

To Japan I'd like to import "the volunteer spirit" in America. For most of us including me don't have it, and before starting new things by ourselves we sometimes hesitate. So we need it, courage. And to America I'd like to export the sense of nature. I don't mean ecological sense. I mean the emotion when we see the nature. We can see it in "Waka," "Haiku," our own poems in Japan. Maybe reading them, you wouldn't understand the meaning. So I'd like you to understand it. —Kuroda

To Japan: Some places for public (park, road, river, university, etc.) are very clean. They never throw a cigar end away in America.

To America: Railway systems are very poor in cities. Car does a lot of harm to the atmosphere, I think. —Tsuji

I would like to import the system of University, I mean, Americans can enter the college and then quit going and take a job and then they can reenter the college again. That's a great system, I think. —Matsumoto

I'd like to import strong will to develop one's own life and circumstances which makes it possible to do so. I would export the custom of being thoughtful of others. —Akaki

What did we forget to tell you?

American people in America always take off their clothes easily. —Yasuda

Well, I think you didn't tell us about your plan in detail. So I and us were in trouble. I didn't know where we were going next, and what we should do. —Matsumoto

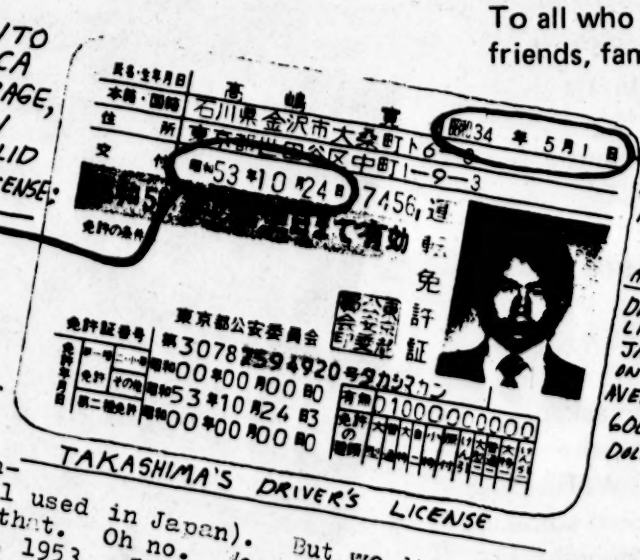
Afterword

In case it wasn't evident from the responses we want to add here that we all had a really incredible time. So much so that Kitamura is now in the process of forming another group to go again this summer, and Takashima is quitting his university and moving to America to go to school there.

To all who were a part of our trip, all hosts, friends, family, and hitchhikers, a sincere "Domo arigato gozaimashita" from all of us.

Masayuki Kitamura
Kazuyoshi Ito
Yutaka Takashima
Kazuya Norimatsu
Shigeru Kuroda
Yasuhiro Yasuda
Akio Matsumoto
Akira Urabe
Yasuhiro Tsuji
Kazunori Uetsuji
Masanori Akaki
Jhon Einarsen
Ed Shorer ■

HOW TO GET INTO BARS IN AMERICA IF YOU ARE UNDERAGE, JAPANESE, AND IN POSSESSION OF A VALID JAPANESE DRIVER'S LICENSE:



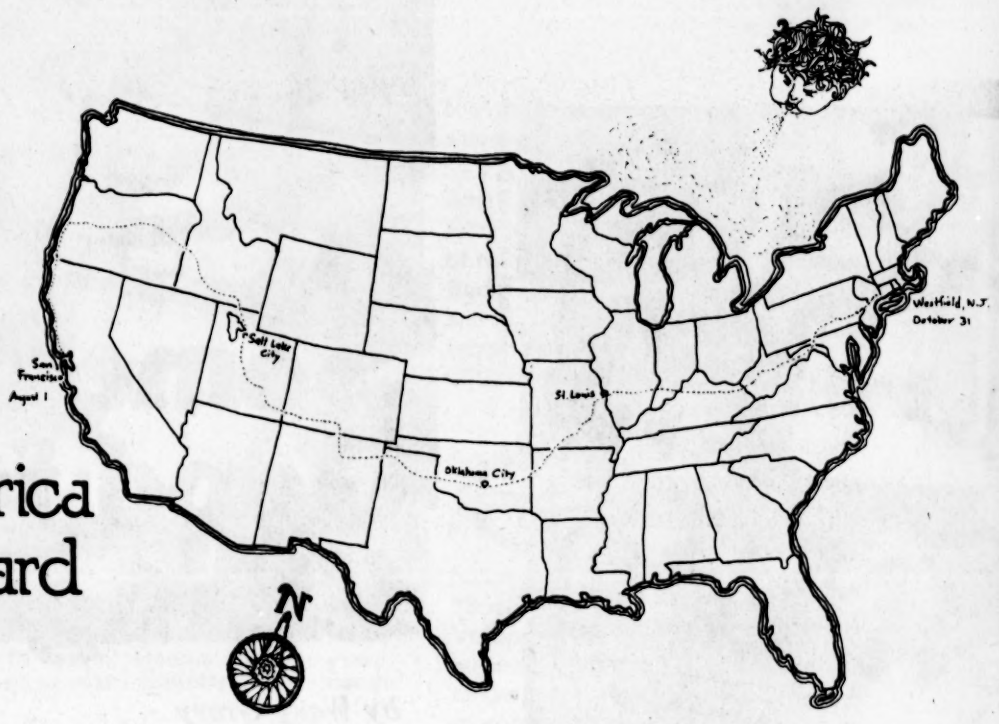
TAKASHIMA'S DRIVER'S LICENSE

This says, "Showa 53rd year, 10th month, 24th day." It was that date that Takashima got his license, October 24, 1978 (the 53rd year of the Showa Period, the traditional dating system still used in Japan). But we didn't tell the bouncers of the bars that. Oh no. We said that that was his birthdate: October 24, 1953. That made him 25 years old at the time.

All eleven would be lined up with their drivers licenses in hand as they and their licenses would be given the once over. Must admit it was pretty humorous to see them all get the o.k. every-time by people who had no idea what they were looking at (but pretended to know all the time).

Kevin Kelly wrote "Travelling in Asia" for the ***Next Whole Earth Catalog*** *(p. 400).*

–Anne Herbert



Bicycle Haiku Ride Across America Go Easy, Look Hard

by Kevin Kelly

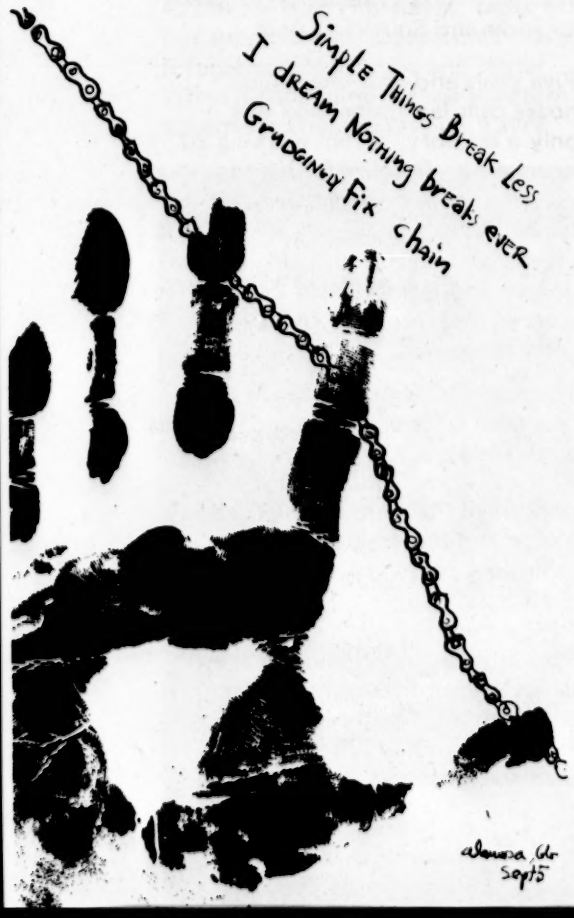
THE HARDEST PART of riding my bicycle across the country this past summer was leaving my camera behind. Instead I brought along a blank book and filled its leaves with a sketch and a haiku on each page. A haiku is a 17-syllable Japanese poem, constructed in three lines, 5 syllables, then 7, then 5, without rhyme or meter. Our English ears do not register syllables – we hear accent stresses – so haikus are best translated as rhymed couplets because this approximates their compactness and natural spoken ease in our language. My sketches and 17 unit haikus were done as spontaneously as I could manage, so inadvertently two have 18 syllables, yet it would require extremely close scrutiny before anyone could note the difference. In English we simply don't "count" syllables.

Any poet worth his salt knows this, but I was and still am a green novice. Sometimes they work anyway. However, whatever the quality of the final poem, the exercise of trying to concentrate, distill a scene, a whole day's education, or the state of the world as reflected from the front of a highway sign to 17 shallow words is, of course an art, but also a simple craft to begin.

The newsstands are cascading in fat magazines, the bookshelves are overgrown with hundreds of thousands of offset words. Even poems can stream on and on like rivers. Occasionally a handful of words is juggled to transparency to reveal the whole world. Imagine the **Whole Earth Catalog** and all **CoEvolution Quarterlies** reduced to a haiku. Not by me, but it's already been done!

The rules are simple and unambiguous. If it fits, it's OK. If it "works" is a whole other story. Some famous Japanese poets were professionals at this and made their living solely composing 17 word grenades.

Next time I ride my bicycle across the country, I'll bring a bigger book, and I'll pen rhymed couplets-like-haikus. I use a waterproof Flair and a bound blank book with paper prepared expecially for pen and ink. ■



Everyday relic
Smithsonian artifact
Bygone dinosaur

Cut out Silhouette
flicked up from flat
prairie board
Twilight Wind flutters

MARTHA STUART COMMUNICATIONS

If there are saints, God the ironist would probably have them appearing in unexpected guises: renaissance beatnik, poet, stand-up comic, helper of multitudes, commune child care chief, Earth People's Park Ranger, Nobody's Fool, humanitarian, and clown, all of which are Wavy Gravy.

Wavy and the Hog Farm, which he helped get going, got known for providing security at Woodstock, the New Games Tournament, the Whole Earth Jamboree and a number of other big weird gatherings. Because Wavy and the Hog Farmers' hearts are good and warm and wise, secure is exactly how you do feel when they're about. In this article, Wavy talks about the latest good deed that he and they and some of their friends are doing and needing help with.

—Stephanie Mills

Something Good for a Change

by Wavy Gravy

NOW THAT THERE
ISN'T ANY SMALLPOX
HOW ABOUT GETTING
RID OF BLINDNESS?

Paul Krassner, Anita Hoffman, Ed Sanders, Bobby Seale and I appeared as panelists at an '80s conference organized by the University of Wisconsin in 1979. My essential statement was, "The '80s are the '60s twenty years later."

I still believe that's true. *These* are the good old days, and there is a marked resurgence of socio-spiritual political activism in the "free" world reminiscent of the early '60s. Old feathers but a very new bird. Folks whose lives were literally consumed in the antiwar movement took time out to have kids, build houses, grow food, kick back and get bored. The days of the encounter culture are jogging gently into eternity, and people are once again plugging into the issues and each other. This is most evident in the antinuclear movement where millions have turned out with both enthusiasm and creativity. (I have a vision of a phalanx of Santa Clauses storming the Lawrence Livermore Weapons Lab. Can they club Santa on color TV? Only time will tell.)

The Cambodian crisis caused an opening in the Heart of us all and response rose to monumental proportions when the dipshit Iranian media-mambo drove good deeds off the front page and back to the want ads again. This really pisses me off. In media land a plane crash, sex crime or fire will cancel out any act of compassion short of Mother Teresa. Thank God for that woman. She's a real super star. Something to aspire to beyond the John Travolta, Jimmy Carter and Jello Biafra syndrome. Let's make doing good fashionable! Hey, it might catch on!

The world is full of dedicated human beings who spend their lives silently serving humanity, and it's up to us goodheads to lure them into the limelight. Take my boss for instance. On weekends Nicole Grasset slipped out of the sterile confines of the Pasteur Institute in Paris to hand carry measle vaccine to Biafra during their civil war. These and other inspired shenanigans caused the World Health Organization to place her at the head of its Smallpox Eradication Program for India and Southeast Asia.

Five years and over one billion house calls later, smallpox was only a memory. Often working 20 hours a day, Nicole's faith and determination were as infectious to her fellow workers as the disease they sought to conquer. Hundreds of men and women from 34 nations worked together in India on this common goal.

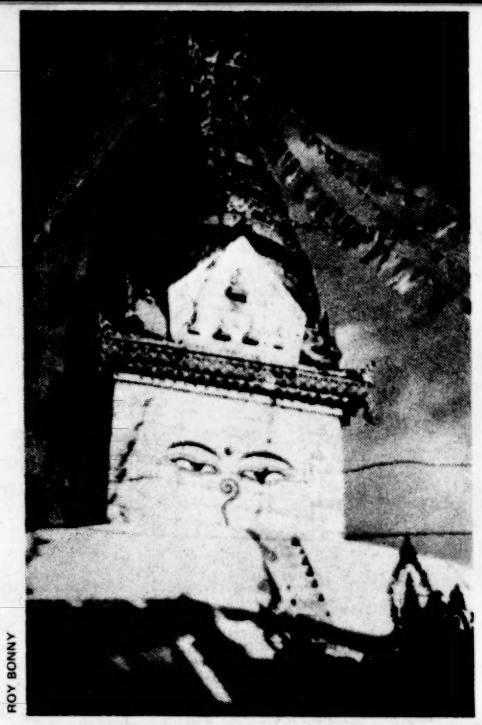
To quote Dr. Grasset, "When have people of different races and religions united as a dedicated team, together with a hundred thousand local workers of different socio-economic groups and professions for the common good? The eradication of smallpox is being acclaimed as an achievement in health, but I feel it should be further publicized as an achievement of humanity to serve as an example to all people of how they might unite in other peaceful endeavors."

When she was named W.H.O. Woman of the Year, **World Health** magazine asked her about her future plans. Dr. Grasset: "At the moment (1976) I feel like a runner at the end of a race, who would only be able to give second best if she began running another race, still breathless and thirsty. When you give, you should give your best. I need some time to replenish myself physically and spiritually and while doing so I hope to determine where and how I can give the most."

Well, Nicole caught her breath in Beirut where she ran the Red Cross Medical team which treated the war's wounded, especially youngsters who had lost arms or legs in the bombings. Dr. Larry Brilliant was one of the Americans on the W.H.O. team against smallpox and in earlier incarnations of this life edited **The Body Politic** — a magazine for radical doctors. He and his wife Girija hooked up with the Hog Farm in 1970 via the Brothers Warner and a rock 'n roll debacle, "Medicine Ball Caravan," which spat us out in merry old England. Hip promoters laid a bus on us and we weighed anchor for the exotic East.

This was around the time of the great flood in then East Pakistan, and we had so much media attention from our involvement in feeding people at the Woodstock Music Festival that we felt if we were there (in Pakistan) and doing it, even on a tiny, tiny scale, it would embarrass large governments to get off their butts and pitch in. Matt Ghandi said, "If God would appear to starving people He would not dare to appear in any other form than food."

Well, the Indo-Pakistan war erupted and our only option was to hang a left in the high Himalayas. Most of our supplies were segued into Tibetan refugee camps in India and Nepal. When it came time for me to return to America for surgery, Dr. Larry



ROY BONNY

The eyes of wisdom are upon you: one of many temples in Kathmandu.

flew to San Francisco and booked me into Presbyterian Hospital for my third and final spinal fusion. While in the Bay Area, he managed to scrape up an entire operating room which he brought to Bangla Desh.

His wife Girija stayed in India with Neem Karoli Baba, and Larry joined her there. It was Maharaji's suggestion that Larry become a U.N. doctor and work with the World Health Organization on the eradication of smallpox: "This is God's gift to Mankind because of the hard work of dedicated health workers." After several yo-yo trips between ashram and W.H.O. headquarters — (I can almost hear them saying, "Get out of there you left-wing hippie pinko, you aren't even an epidemiologist."), Larry and Girija both went to work for W.H.O. under Dr. Nicole Grasset in 1973.

After the defeat of smallpox, the Brilliants returned to Ann Arbor, Larry as professor of Public Health at the University of Michigan, and Girija to study for her M.P.H. There they were contacted by their old boss, Dr. Grasset, who vibrated the next vision. There are 40 million blind in the world today, three quarters of them in developing countries. As much as 80 percent of this blindness is either preventable or curable. This means more than 30 million are needlessly blind. I can hear her in my head saying something like, "Larry, we simply have to do something about this blindness!"

Well, Larry made a few hundred phone calls to friends and associates who in turn . . . and in December of 1978 in Heartlands, Michigan, an unusual kaleidoscope of physicians, mystics, professors and clowns joined smallpox fighters from the World Health Organization to give birth to a new people's organization, the SEVA Foundation. The International Board of Directors of SEVA includes representatives from the full spectrum of religious and spiritual traditions. Buddhists, Sufis, Hindus, Christians and humanists sat together to look beyond smallpox and to discuss ways of doing SEVA.

SEVA is a Sanskrit word which means service to humankind, and an acronym for "Society for Epidemiology and Voluntary Assistance." To us it means using the intellect in service to the heart, technology in service to compassion.

Dr. Grasset presented a challenge to SEVA when we were less than 24 hours old. Would SEVA help Nicole Grasset and W.H.O. mount a global effort to eliminate preventable blindness? The task is huge and seemingly impossible, but so was the eradication of smallpox. Eleven years ago there were two million smallpox cases each year. Of course everybody lit up and screamed, "Let there be sight!" What a flash! SEVA agreed to support a pilot project in Nepal. If you are blind in Nepal, you're rollin' down hill. 300,000 of Nepal's 13 million people are blind. Most of them live in remote villages and must travel on foot up to three weeks to reach any of the nine eye doctors presently in the country.

In March, 1979, at the invitation of the government of Nepal, SEVA conducted a survey to estimate the extent of blindness. Ninety percent of the blindness we detected was either preventable or curable. These results encouraged us to commit ourselves to a five year, nationwide campaign expected to cost $4.5 million dollars.

"Wavy Gravy, how do you know all

ROY BONNY

Wavy's boss, Dr. Nicole Grasset, W.H.O. woman of the year

LARRY BRILLIANT

Nepalese villagers. 300,000 Nepalese are blind. Most of them live a long way from any of the nine eye doctors in their country.

ROY BONNY

The second SEVA board meeting. From left to right, first row: **Ram Dass, Wavy Gravy, Mary Anne Zebroski.** Second row: Calico, **Robert Friedland, Dr. Venketaswamy,** Dr. and Mrs. Pokhrel, **Girija Brilliant, Alan Morinas,** Yvon Karanoff. Third row: **Dr. Carol West, Dr. Nicole Grasset,** Jahanara Romney, making peace sign, **Dr. Larry Brilliant,** holding Joseph Seva Rainbow Brilliant, **Mike Jeffreys,** white-bearded **Dr. Nedd Willard,** Shams Karys above him, Kim Campbell next to him, bearded Marcel Muller, **Dr. Beverly Spring,** and assorted friends of SEVA and the Hog Farm backing them up. (Names of SEVA board members are in **bold** type.)

them numbers? You're supposed to be a psychedelic relic. Your chromosomes have amnesia!"

Relax, Dear Reader – I am lifting stuff wildly from the SEVA brochure, Dr. Larry Brilliant in the 1979 **Daily Planet Almanac** and other stuff so I can make the **CoEv** deadline only a month late. Here's a couple of paragraphs from Ram Dass:

"At the meeting Dr. Venketaswamy, a leading eye surgeon in India who has been awarded the Padma-Shri award (comparable to Knighthood) described his mobile eye hospitals which perform a simple operation restoring sight to those blinded by cataracts. The operation, if there are no complications, takes four minutes and costs five dollars. He told us that at present there are between seven and nine million people in India alone whose blindness is caused by cataracts and who are awaiting this operation. However, because of lack of funds many of them will wait in darkness for the rest of their lives. We were also told by other ophthalmologists that on the prevention side, such simple and inexpensive things as vitamin supplements and eye drops can prevent some of the most horrendous types of eye disease which usually lead to inevitable blindness in children in third world countries.

"The blindness project is but the beginning of the work of SEVA. For it is our dream that SEVA can become a statement of that link between spirit and service (as is the Hanuman Foundation*), and that through this and other projects SEVA can serve as a vehicle for more and more of us to experience the wholeness of our being which comes through service. We shall be adding projects at the rate we can staff and support them. Already we have received impressive support and recognition from such diverse groups as the Dutch Government, W.H.O., the Nepalese Government, the Grateful Dead, a leading helicopter company and a computer company. The Grace is obvious."

That's right, the Grateful Dead. By the grace of God, Bill Graham and the Grateful Dead. SEVA rocked into the '80s with its first benefit. Bobby Weir even came to board meetings! In the morning! What a night!

And now back to Ram Dass's letter to the folks on the Hanuman mailing list:

"At an open house held after the annual board meeting I met a couple who had donated two thousand dollars to SEVA. Why they did this pushed some interesting buttons inside me. It seems that they had set aside this money to buy a hot tub. Then they heard one of my tapes in which I told about the five dollar operation that could allow a blind person in a third world country to see. When they realized that if they gave up the luxury of a hot tub, perhaps four hundred blind people might regain sight, they couldn't not send the money.

"This couple's story pointed up to me the discrepancies within my own life as to how I use energy (green and otherwise). Such an examination showed me the ways in which I have not yet integrated the various parts of my life. The more I awaken the more I realize my identity with fellow human beings and the more compelling becomes the need to serve. And yet I still squander energy unconsciously. These days I am trying to practice the injunction of Mahatma Gandhi chiselled in stone at his memorial: "Recall the face of the poorest and most helpless man whom you have seen and ask yourself if the step you contemplate is going to be of any use to him. . . ."

"There are many ways in which our acts and the use of our money can relieve suffering. There are the large visible needs such as the pressing Cambodian relief and little private needs such as friends or small local projects designed to alleviate injustice or hardship. I do not consider the SEVA Foundation more worthy of your support than these other human demands upon our resources. But I do invite you, as I am learning to do, to use your resources consciously to bring about a world in which you and I would like to live. And if as a result of these reflections you find that you have five dollars or more that could help the SEVA Foundation, I'd appreciate it if you would send it along. If your funds are tight or are already allocated, please don't feel any guilt. Instead enjoy the beauty of the day so that your heart can infuse into the Universe peace, love, and joy."

SEVA Foundation, 108 Spring Lake Drive, Chelsea, MI 48111.

In love,
Ram Dass

Hey, thank you, R.D. I'm the FUNd raiser in this here outfit and that was a straight and righteous pitch.

Just in from the Cement Apple (NYC) where we had a beautiful folk music concert in Carnegie Hall and a world press conference at the United Nations with three of the artists from the show: Odetta, Tom Paxton, and Peter Yarrow.

Also SEVA Board Members Dr. T. Stephen Jones, alumnus of the Indian smallpox victory and now from the Center for Disease Control, Nedd Willard, Information Officer, W.H.O., Geneva, and me who they introduced as "Mr. Wavy Gravy, Humanitarian, and, uh . . . clown!"

All spoke well, but Tom Paxton, he said it: "To be blind is a tragedy and to be unnecessarily blind is just criminal."

The press conference concluded with a rousing chorus of Amazing Grace. "I once was lost but now I'm found . . ."

It was the first time anyone had ever sung in the press room and the reporters clapped and beamed.

". . . was blind but now I see . . ."

An Oregon tree farmer has given SEVA a seven carat diamond! Something good for a change and the eyes have it. ■

*The Hanuman Foundation, a result of the success of Ram Dass' books and lectures, supports a variety of activities. Among them are a cassette library on spiritual matters and a prison ashram project.

Ameslan

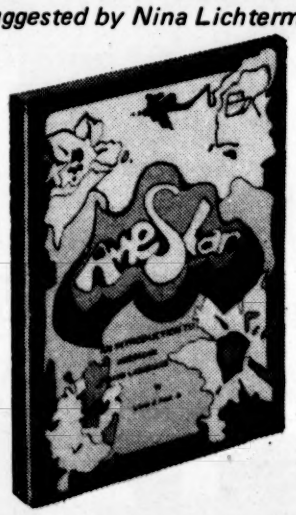
The objective of this book is not merely teaching finger spelling. It is to instruct the way signs are linked together. Deaf people do not spell things out letter by letter, but can express sentences or questions or concepts with a minimum of signs (often lovely). This is clearly shown in photographs and dialogues.

The delivery of the information is rather dry, but complete and easy to understand. There is also a set of films made especially to accompany each lesson in the book.

The author qualifies his work by saying within that the text should not be used as a self-teaching device, but rather as a reference with a teacher and/or group. He stresses that one must "speak" and "hear" signs to learn them.

An honest, learning reference. —*Patricia Masters*
[Suggested by Nina Lichterman]

Ameslan
(An introduction to American Sign Language)
Louie J. Fant, Jr.
$10.95 postpaid from:
Joyce Media
8753 Shirley Avenue
Northridge, CA 91324
or Whole Earth Household Store



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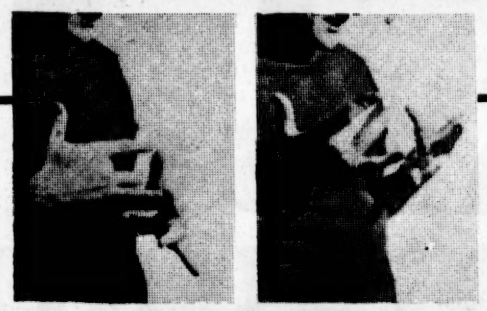
Ameslan is an acronym made from the words, American sign language. Ameslan does not follow the English grammatical scheme. It is a wholly different language from English. In its structure, it has more in common with Chinese than English.



thrill, excitement

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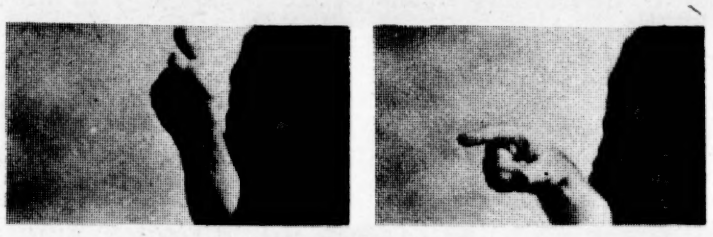
The sign thrill is often used idiomatically to mean, "What's new?" "What's going on?" "Anything exciting happening?" "What's wrong?" "What happened?"



ask a question

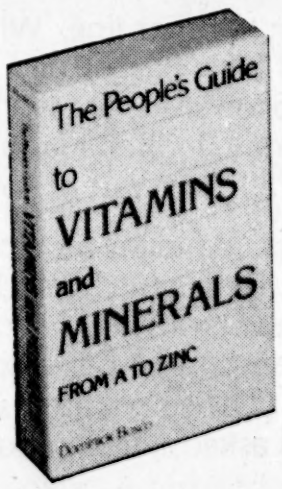
•

The sign ask question is extremely versatile. When you sign it towards the observer, it means, "I ask you." When the signer signs it towards himself, coming from the observer, it means "You ask me." When the signer signs it towards himself coming from an angle to the sight line, it means "(a third person or persons) ask me." To convey the idea, "I asked several people," move the sign in an arc as you repeat it, as if the people you asked were standing there in front of you. When the sign is done with both hands along the sight line, it means, "test," "examination," "quiz," "interrogation," etc. When the sign is made with both hands, moved downwards while being repeated, it means "questionnaire," "survey form," etc. Finally, there is an idiomatic use of the sign. When in English, we respond to a question with a statement such as, "I think so, don't you?" or "Do you really think so?" the sign ask question is used for the "don't you" in the first example, and for the whole sentence in the second example.

The People's Guide to Vitamins and Minerals

I'm a sucker for a good book on nutrition (they are rare). Bosco's treatment of vitamins and minerals is the best lay guide to the subject I've seen. Happily lacking in dogma and stridency, it provides fresh insight into a subject which is overrun with half truths. —*Paul Hawken*

The People's Guide to Vitamins and Minerals
(From A to Zinc)
Dominick Bosco
1980; 325 pp.
$6.95 postpaid from:
Contemporary Books
180 North Michigan Ave.
Chicago, IL 60601
or Whole Earth Household Store



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The doctor who reported magnesium's use in "housewife syndrome" describes the malady as "fatigue in the morning after what should have been an adequate night's sleep, and a lassitude that, although less severe in the morning, rapidly increases during the day, with utter exhaustion by nightfall." Added to these are vague pains, tension headaches, insomnia despite tiredness, and lower back pain. Of course, these symptoms could be found in *anyone* with a full day of work ahead of them.

Nevertheless, the doctor used supplements of magnesium and potassium, and succeeded in alleviating many of the symptoms in eighty-seven percent of the women (*and men*) treated. The subjects became aware of an increase in energy and strength, and almost all undertook new activities, including part-time jobs outside the home.

•

A Norwegian study found that more than fifteen percent of the patients admitted to a mental hospital over the course of a year had blood levels of cobalamin low enough to be considered deficient. There are numerous reports of various mental disturbances successfully treated with cobalamin.

One of the most interesting is that of an eleven-year-old girl who was "accidentally" cured of psychosis. Her parents took her to the doctor after she started hearing voices calling her name. She was irritable, paranoid, moody, and uncooperative. Because she refused to take any medications, the doctor gave her cobalamin tablets to take twice a day. The idea was to substitute a psychiatric drug after the child grew accustomed to taking a pill twice a day. When she was brought back to the doctor a month later, it was no longer necessary to give her the drug. The vitamin had cured her psychosis. At the time of the report one year after the first treatment, the girl was still maintaining good mental health while taking 75 to 125 micrograms of cobalamin twice a day. When she didn't take the vitamin for a few days, her symptoms returned. The doctor reports that subsequent patients have been helped by cobalamin, too.

TALES OF THE TOTAL STRANGER

by J.D. Smith

Illustrations by Steve Murray

Here are a few stories about encounters with fellow humans as surrogate critters from outer space.

Neapolitan Earlobes

Twenty years ago I was a Greek and Latin scholar standing at a bus stop north of Naples, in Sophia Loren's hometown, contemplating antique concerns such as "Is the temple on the acropolis at Cumae truly octastyle?" and "Did I knock up the poetess in the lifeboat?" Standing next to me was a well-fed woman in a United States Navy quite-below-the-knee uniform, so, in a classical English that had been eighteen years sifted through the sandhills of Nebraska, I quite unintentionally asked her the correct bus to take for nipples.

Until that day, whenever I said something dumb and regrettable, my right thumb and forefinger would latch onto my right earlobe, as though trying to switch the channel or put out the lights. I was tugging that day, flushing at the thought of the breasts under all those buttons, and staring up toward where I wished the bus would materialize, when a healthy fellow, who may have been Sophia Loren's brother, popped into focus, thumped me on the shoulder and forehead, and began rattling away in Neapolitan much more excitedly than my Greek and Latin would admit.

I assumed that he had overheard my blunder and read my mind, but the faster I said "Sorry," and the tighter I held my ear, the more he stamped his feet, so I found sanctuary in the eyes of the Wave, and she said, "Let go of your ear, kid. When you do that in these parts, the boys think you are calling them queers."

A Couple of Grocery Clerks

One. In McComb, Mississippi, fifteen years ago, B.J. and I were quite interracially in love, holding hands in the supermarket line. When the orange juice had been bagged and the cash drawer slapped shut, the woman who took my money, looked me in the eye and asked, "Y'all from out of town?"

Two. At eight o'clock on Saturday morning, Beth's birthday, I put two quarts of strawberries and half a gallon of vanilla ice cream on the Lake Fork, Idaho Merc. and Post Office counter. The proprietor smiled and asked, "Doing your own cooking?"

Beware of Target Teeshirts

I was trying to fall in love with a woman banjo player who appeared occasionally at a bluegrass bar in San Francisco. Somehow the beer always got to me before she did. Usually by

closing time I was sweaty from not being able to dance, and she was plenty tired of hearing me request another waltz.

After one such closing, I walked around a couple of blocks to where Lombard Street plugs the city into the Golden Gate Bridge, and began hitchhiking at a bus stop, trying to get home to my mattress on the warehouse floor. I was wearing normal bluegrass attire: boots, jeans, a hat that looked like the eighteen wheeler had backed up to run over it again, and a yellow teeshirt with a red target on the front, referring to someone's wish to cease having Kaho'olawe, one of the Hawaiian Islands, used as a United States Navy bombing target.

A fellow hitchhiker appeared, attired in high Marin earthstyle, with running shoes and daypack. He offered a smoke, and while I was staring at the laces that weren't in my boots, he pulled a nasty little revolver out of his pocket and said, "You go sit on that bus bench, Booze-boy, while I hitch, or I'm gonna plug you in the teeshirt." I obliged. It took him about fifteen minutes to catch a ride. I caught the bus.

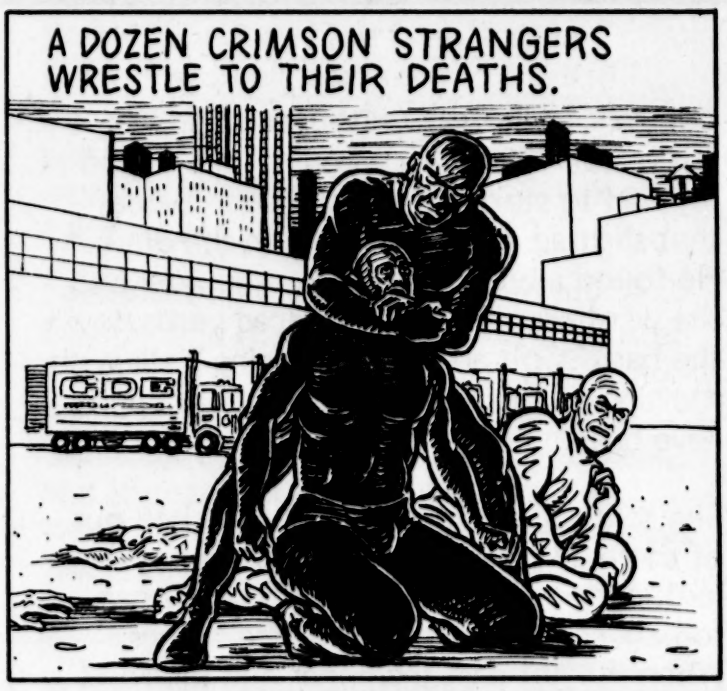
Gut Shot

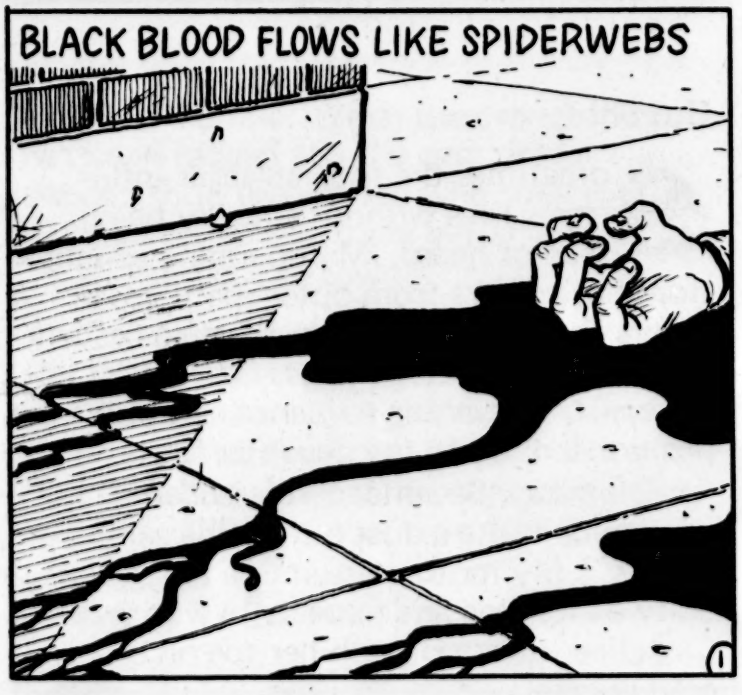
Sometimes the total stranger influences lives without actually being seen or heard. My operating assumption that critters from outer space do, in fact, exist, has led me to cultivate a certain nonchalance about surprises because I expect some evening to glance across the pasture and say to my daughter Delta, "A Glomsock Seventeen Telesaucer is stirring up quite a dust out by the salt blocks." My mother assumes a terrestrial deity of fortune and expects to win the Canadian lottery or stub her toe on a gold nugget.

About twenty-five years ago my folks and I were cruising up the Big Thompson canyon not very far above Loveland, Colorado. We were negotiating a long, lazy curve to the left when my mom told my dad to stop the car, pull over, whoa, that she had seen something in the ditch. He found a wide spot on the shoulder and she went scampering a hundred yards down the barrow pit and came running back with a wrapped-for-mailing package that might have been a pair of shoes.

She told my dad to hurry, get the hell out of there, before whoever lost it came back looking for it, and as the old Ford began rolling, she began tearing at the strings. When she got past the paper and tape and shoved her hand down through the top flaps she found that the tidy coyote total stranger had eaten a good meal because the box was full of chicken guts. ■

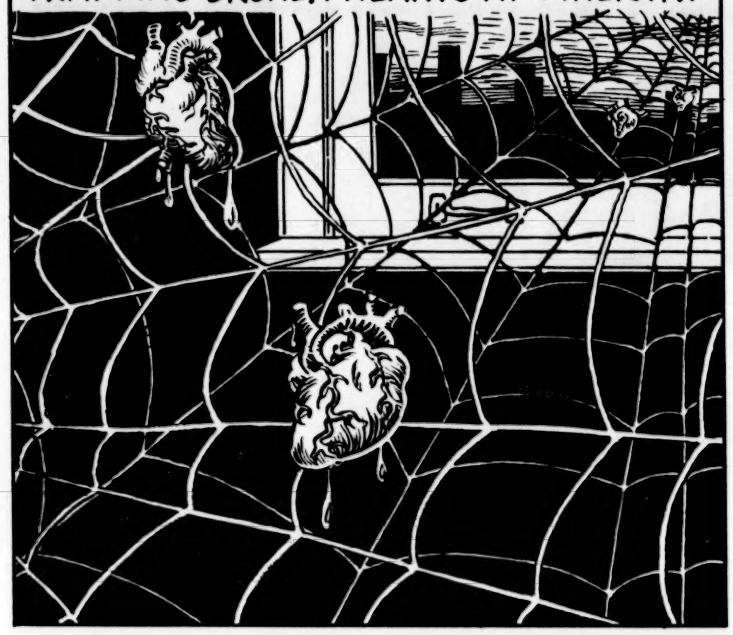
WHOEVER YOU ARE, WHEREVER YOU LIVE, SOMEDAY YOU'LL COME TO





by Jay Kinney
with Adam Cornford

TRAPPING BROKEN HEARTS AT TWILIGHT.



KARL MARX ARRIVES BY TOYOTA, ENVELOPED IN A CLOUD OF CROWS.

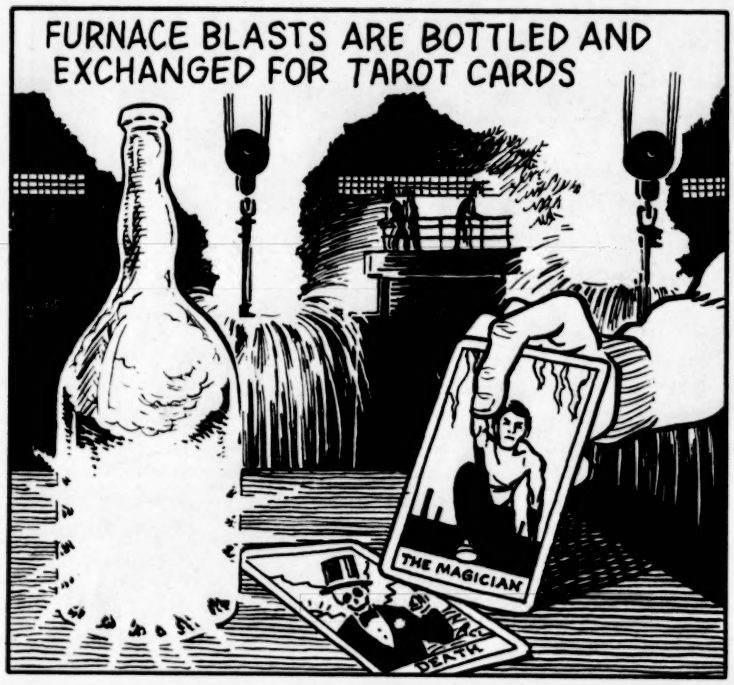
NEWSPAPERS TUMBLE PAST.

THE WARRIORS EMERGE FROM SNOWFLAKES!

YOUR MOTHER WATCHES DISGUISED AS A NUN.

THE COUNCIL IS CONVENED.

YOUNG HANDS SWING CROWBARS DOWN ON THE VAST MARBLE BRAIN.

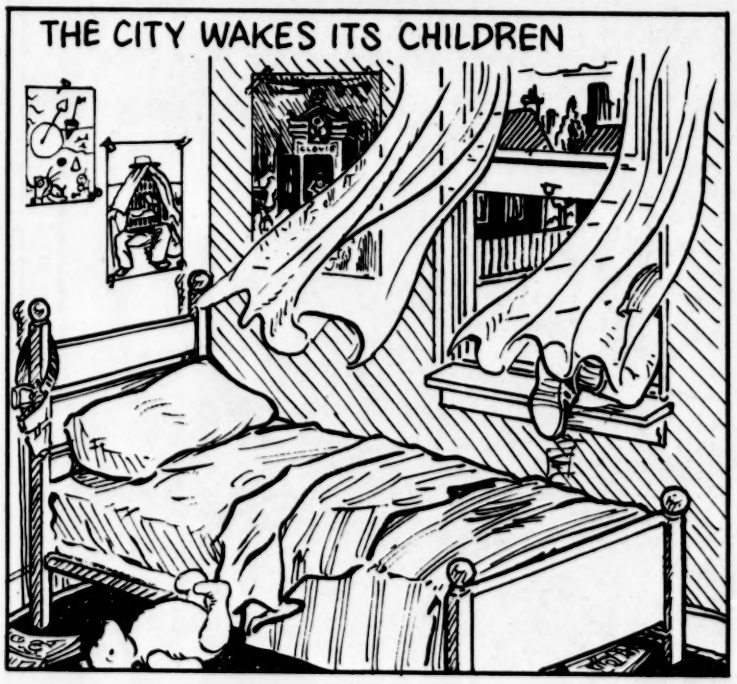

FURNACE BLASTS ARE BOTTLED AND EXCHANGED FOR TAROT CARDS
THE MAGICIAN
DEATH

IN THE FILE ROOM, A BABY'S CRY.

SHE PROFFERS A NIPPLE OVER BROKEN GLASS.

A CAMERA TILTS TOWARD THE DRIPPING STARS.

WEARING A CROWN OF ARTERIES, SHE CROSSES THE BRIDGE.


THE CITY WAKES ITS CHILDREN

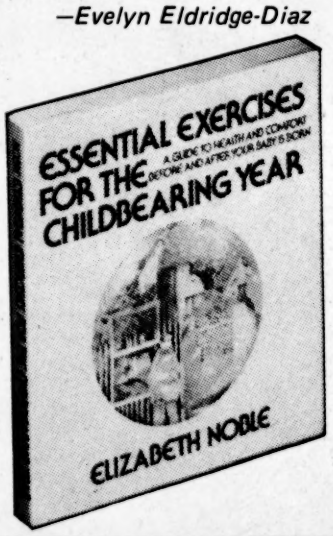
AS SUNFLOWERS TURN WITHOUT STOPPING.
Fin

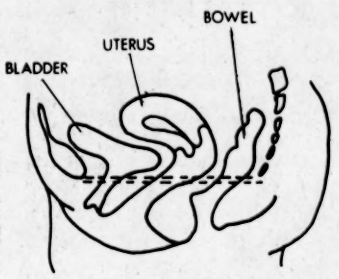
Essential Exercises for the Childbearing Year

You don't have to be obsessed with regaining your 17-inch waist after giving birth, like Scarlett O'Hara was, to appreciate the effects of exercise during and after your pregnancy. And you don't have to embark on a strenuous all-out motherhood olympiad, either. Of the books available on the subject nowadays, there is one I would recommend above the others. **Essential Exercises for the Childbearing Year** *is by Elizabeth Noble, a physical therapist who has specialized in obstetrics and gynecology. She gives explanations of the functions of the important muscle groups involved in childbearing and what you can do at any stage during or after your pregnancy to strengthen them. She especially emphasizes the importance of the pelvic floor muscles and that an easy-to-learn strengthening routine is probably the most important single exercise a woman can do, at any time in her life. Learning and doing this exercise can often prevent and sometimes alleviate common female complaints such as urinary incontinence and herniated uterus. Also included are excellent discussions of the importance of diet, rest, and preparation for labor.*

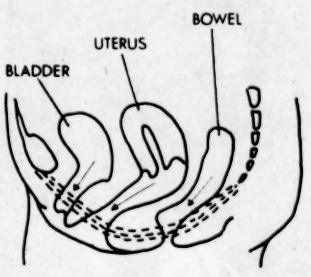
—Evelyn Eldridge-Diaz

Essential Exercises for the Childbearing Year
(A Guide to Health and Comfort Before and After Your Baby Is Born)
Elizabeth Noble
1976; 180 pp.
$5.95 postpaid from:
Houghton Mifflin Co.
Attn: Mail Order
Two Park Street
Boston, MA 02107
or Whole Earth Household Store





Good pelvic floor support with a firm base, organs in place.



Inadequate support and the hammock sags, contents descend.

●

Exercises before birth are designed to build up the pelvic floor muscles and their blood circulation; then more muscle fibers will survive under distention because the nerve and blood-circulation connections remain intact. Regeneration after childbirth is easier when the muscles are strong, not stretched, beforehand.

●

The following activities concern the action of raising the pelvic floor and tightening the sphincters. Since these exercises involve lifting up and drawing in the muscles, they are not only safe but absolutely essential to do.

Position: Seated on the lavatory, legs spread well apart for urination. Feet may be supported on a stool if commencing voiding is difficult.

Action: During urination, stop and start the flow a few times. Break it off smoothly with no dribbling.

Progression: Let a smaller amount pass each time! Take care not to increase stress and weakness if this exercise is too difficult. You may find this a tedious exercise, but it is a useful check of muscle power. At least, always concentrate on a strong uplifting contraction of the floor after any elimination. This will provide frequent opportunities for muscle exercise and serve as a reminder.

Aids: Let some urine out before exercising. Do not do this exercise during your first morning urination, when your bladder is very full, or at night, when you may be very tired and uncomfortable.

The Experience of Childbirth

This book probably saved my daughter's life. After a perfectly normal labor I began pushing and discovered that with each contraction her heart beat was decelerating (her cord was around her neck so that each contraction was cutting her oxygen supply). The position of my backbone made pushing her out extremely difficult, and there were no forceps close at hand to speed the delivery.

Thanks to Kitzinger's instructions for pushing effectively, I knew what to relax and what to tense, and I was able to push her out fast enough. Her cord stopped pulsing as she emerged to take that first crucial breath.

Kitzinger communicates an understanding of how to train and use your body in childbirth that I haven't found in books or classes. Her relaxation exercises are super. Unlike most Lamaze teachers who encourage a woman to focus attention on breathing to divert her from experiencing the contractions, Kitzinger encourages her to experience fully and allow her body to respond to the powerful sensations of birthing. I found her approach of going into the experience much more satisfying and helpful than the Lamaze techniques I'd used with my first baby. However, no matter what method you use for prepared childbirth, this book will be invaluable.

—Linda Williams

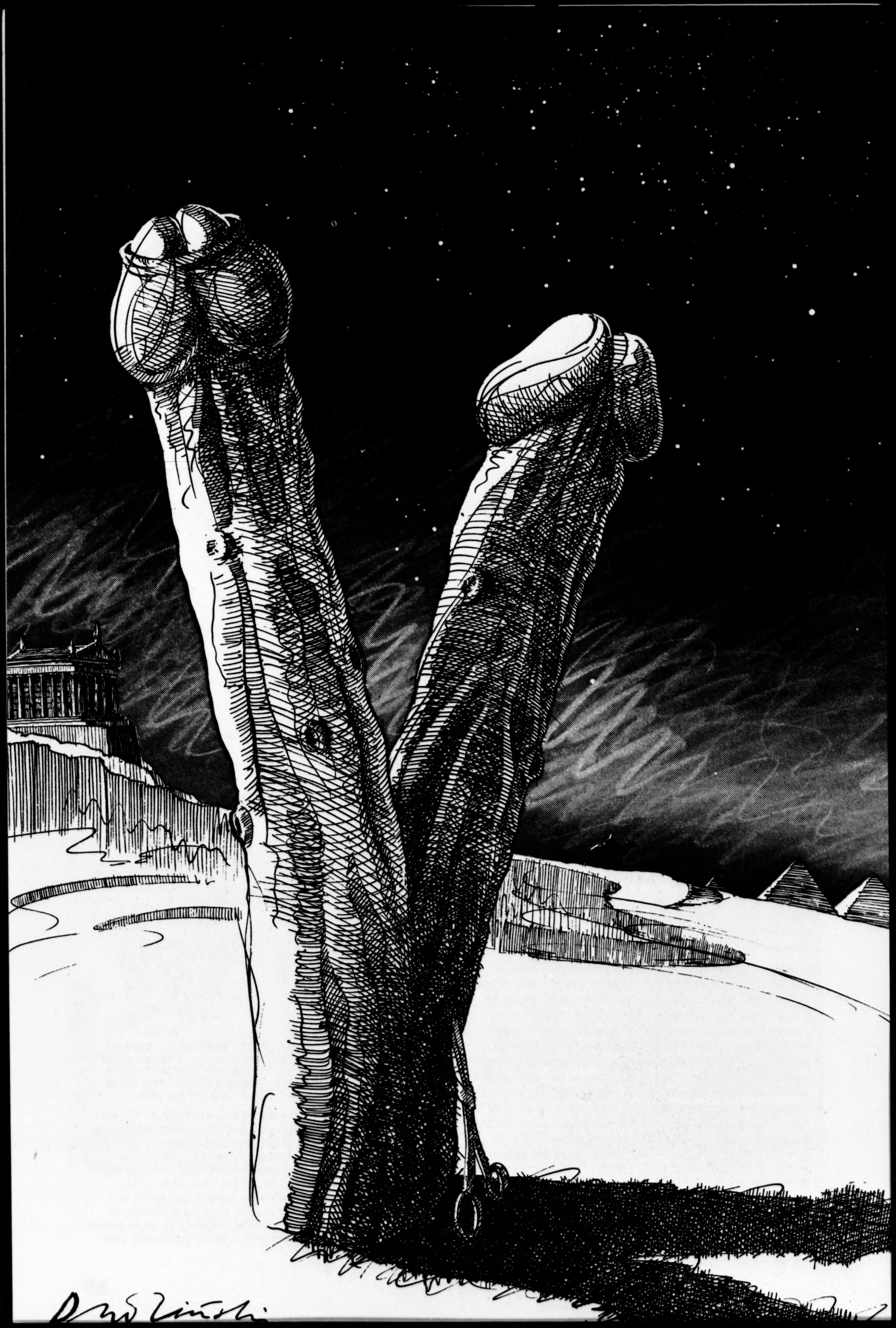
●

When you are in labour and your baby is about to make his entry into the world it is extremely difficult to know yourself whether you are relaxing the birth outlet. The feeling of the baby's head is so unfamiliar that it hardly seems like the body you know any more. It is like a seed pod bursting open or like the speeded-up films of flowers opening in sunlight that one sees occasionally on television. But you can tell what you are doing with your mouth, and your husband can also see whether you are relaxing there. So as the baby approaches the perineum, gradually distends it and then slowly oozes through the birth outlet, concentrate upon relaxation of the lips, tongue and throat, and with each breath out think to yourself 'give' or 'open'. You will find no difficulty in this, and if you are leaning forward slightly so as to watch your baby's birth and to control it more delicately you will probably be smiling.

The Experience of Childbirth
Sheila Kitzinger
1962, 1978; 335 pp.
$4.25 postpaid from:
Penguin Books
299 Murray Hill Parkway
East Rutherford, NJ 07073
or Whole Earth Household Store

The baby's head is flexed forward on his chest as he descends the birth canal, the shape causes the head to rotate so that the baby is facing the mother's back.

The birth of the head by extension. The baby's head crowns. Notice that the baby's chin is now lifted well up off his chest.



The Foreskin File

by Heathcote Williams
Illustrations by Andrej Dudzinski

Heathcote Williams, who isn't circumcised, writes that he "was born in Helsby, Cheshire, England, in 1941, and is the author of ***The Speakers****, a documentary novel about four Hyde Park Orators (Grove Press, 1964), and several plays including* ***AC/DC*** *(Viking Press),* ***The Immortalist*** *(John Calder Ltd.),* ***Hancock's Last Half Hour*** *(Polytantric Press). 'The Foreskin File' is from an anthology of essays, fictions, phobias, rantings, ravings, sermons, poems, manifestoes and graffiti, entitled* ***Severe Joy****, and due to be published next year by Savoy Books."*

He now lives in London and is associated with Open Head Press and ***The Beast****, a magazine of animal liberation.* *–Anne Herbert*

Circumcision is a massive kick below the belt that never wears off and with few referees around to cry Foul! It is widely practised in nations noted for their aggression: ninety percent of all American males are circumcised automatically. It scars birth, marries the first moments of life to pain, and even when performed with the most sophisticated equipment can cause death. It has no religious, sexual, medical or aesthetic justification.

LET US BEGIN AT THE beginning. The earliest mention of circumcision is in the Egyptian Book of the Dead. The God Ra circumcises himself in mid-air, the drops of blood dripping from his severed foreskin are considered to constitute the souls of mankind. An unpleasant Creation Myth doubtless designed to convey to anyone inveigled into the Egyptian death-culture that life is mutilation. The Egyptians circumcised all their slave races at birth. The death culture demanding an entrance fee to be extracted before the new arrival is conscious enough to proffer it (assuming that it wants to).

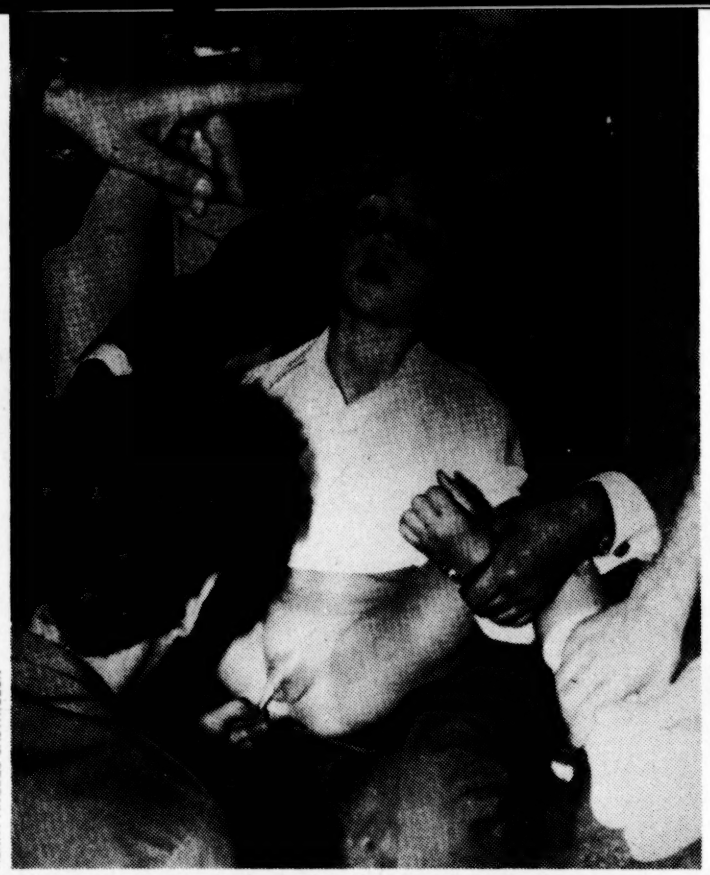
The Jews and the Muslims cribbed the idea, if it can be called that, from the Egyptians.

Abraham, founder of Judaism and an Islamic guru (he built the Kaaba, or House of the Gods), was an unprepossessing geriatric schizo who was married to his half-sister Sarah. Sarah was reputedly beautiful, and Abraham would donate her to nearby potentates when he and his tribe were squatting their land, claiming that she was in fact his sister, and without consulting her. The poor woman spent most of her life as a groupie to various desert panjandrums in order to earn the tribe some security of tenure.

Suddenly Abraham starts hearing voices telling him to kill his son for Jehovah, so he puts Isaac on a slab, and sharpens a knife. Fortunately for Isaac, Abraham tunes into another channel which tells him to kill a ram instead, and he conveniently finds one in a thicket, and kills it.

However, he's obviously left with the feeling that he might have served Jehovah rather inadequately, by switching channels, and so orders the genital skinning of all the male children in the tribe. Having abused his love for Sarah with politics, it's clear that he no longer really knows where he stands (his age is given in the text as ninety-nine when he ordained this mass circumcision) and he perhaps made up his mind that everyone else in the tribe should have difficulty getting a stand.

His senile injunction was followed by this rider: "And the



HENRY ANGELO-CASTRILLON

"Young boyhood." Circumcision or Sunnet is the first step taken towards being considered a true Turk. In Istanbul, Ozer submits to the pain of this tradition. Friendly hands hold him while another hand admonishes 'Don't cry.' Circumcision in Turkey is done at an age when the boy will never forget it.

uncircumcised male who is not circumcised in the flesh of his foreskin, that soul shall be cut off from his people; he has broken my covenant."
(Gen. 17. 14.)

Such are the "religious" origins of the operation. What possible use either Jehovah, Ra or Allah can have had for the trillions of foreskins offered to them over three thousand years has never been disclosed.

Isaac Bashevis Singer records in his book **In the Court of My Father** that the foreskins of the faithful in some Eastern European synagogues were kept in silver tubes by the Rabbi and handed to their erstwhile owners to hold during the Sabbath service to remind them of their covenant, or *bris* with Jehovah. In the Babylonian Talmud the blood from the operation is caught in a bowl of scented water and then drunk by the relatives. Nowadays alcohol is drunk instead at a bris. The *mohil* (the gentleman who conducts the operation) is hired by the boy's mother eight days after his birth.

The male child, high and happy, surrounded by laughing boozing relatives suddenly has its genitals caressed with a razor and is taken away screaming into another room in order not to spoil the festivities.

In Islam most people are circumcised by the barber, and at a later stage in their life, usually about eight. There was recently a mass circumcision in Morocco. Everyone was anxious to have their sons circumcised on the same day as King Hassan's son, believing it would bring them luck. They were also promised a chicken and a bag of flour, both courtesy of American foreign aid.

When practised in the Transkei (where clitoridectomy is also practised) the initiate must stand up immediately after the operation and beat his chest, shouting in his tribal language: *I am a man!* It's not revealed whether girls who have just been deprived of their clitoris have to make a similar declaration. And no business deals are conducted in the Transkei with the uncircumcised.

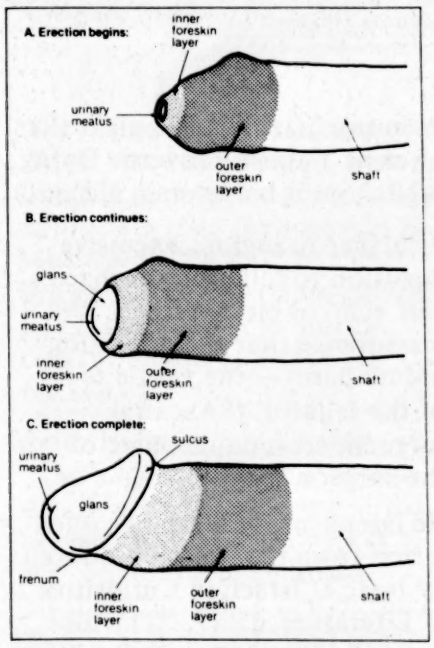
It was widely practised in the British Army on soldiers engaged in desert campaigns, ostensibly for reasons of cleanliness (which will be studied later), but really because sand caught in the foreskin leads to irritation, and then to masturbation in the search for relief, and a compulsively masturbating squaddie was felt unsuitably qualified for mayhem.

A form of circumcision is practised in the Yemen as part of the marriage service where in front of all concerned parties, the young man is stripped off and while sustaining an erection, has the top layer of skin cut off, so that the consummation of his marriage, also witnessed, is imbued with appalling pain.

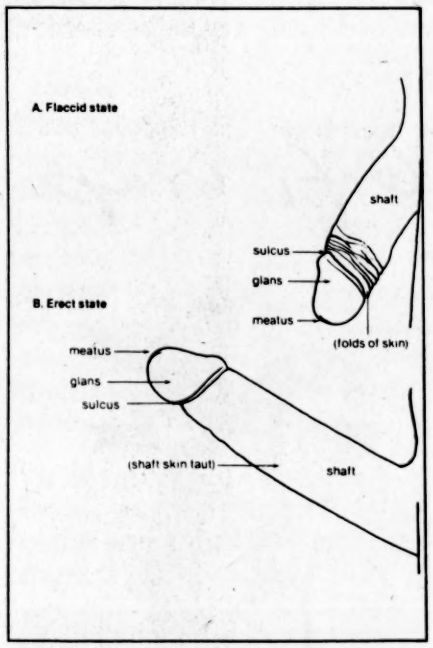
About one sixth of the world's male population is circumcised, and in ninety-nine per cent of them the mutilation is carried out without the real consent of the patient. In the case of infants the mutilation is carried out by force. It occasionally happens that some people acquire a complex about their foreskin and have it surgically removed of their own volition, either at their own expense (*vide* David Hockney whose boy friend had made him self-conscious about it) or in the case of an anonymous contributor to the magazine **Libertine**, under the National Health. This contributor, who proudly accompanies his piece with before and after photographs, had been made to feel inferior about his penis by a girl friend and before the operation had compulsively pulled his foreskin back vainly trying to keep it in that position all day for five neurotic years. Sadly after the operation this contributor is compelled to admit that he misses the easy movement of a foreskin.

Aesthetic reasons are perhaps the shallowest of all. In a recent issue of **Penthouse** a highly eccentric letter was published from a Miss R.G. ("name and address withheld by request"): "Why are so few Englishmen circumcised? or am I only attracting those who aren't. No wonder my flatmates shudder when I talk about oral sex.

"I've been in England on a college grant for almost a year now and I think I'm a reason-



Erection in the uncircumcised penis. From Circumcision **reviewed on page 77.**



Erection in the circumcised penis.

ably unhysterical and quite natural girl.

"In Israel all the men are circumcised. I like to take a man's penis in my mouth and it is so much pleasanter and so much easier to fall in love with one and admire it and generally make a fuss of it, if it is attractive and a reasonable size. How can a girl enjoy sucking an uncircumcised penis when there is no nice knob to roll around in her mouth like a gob-stopper? This gob-stopper is amusing. It is an English sweet. One of my boy friends bought some and made me suck one. It is just the size and shape of the knob on a man's penis. I think it is apt. I do not want to go into a lot of details about hygiene and taste, but whatever the advantages and disadvantages, I would just like you to know that a circumcised penis is much tastier to look at and it makes a nicer bulge in a man's trousers than the other version."

Miss R.G. is, of course, quite entitled to her view. Valerie Solanas, author of the S.C.U.M. Manifesto (the Society for Cutting Up Men), and who later attempted to murder Andy Warhol, believed that men looked much better with the entire penis cut off at the root.

There is an odd brand of female Stalinism going the rounds which, while outraged at the prospect of clitoridectomy, feels that circumcision somehow serves men right. If devotees of aesthetic fascism such as Miss R.G. thought slightly deeper about the matter they might feel that since many men's first experience of having their genitals touched is to have them slashed, later marriages of sex with violence may not be unconnected with this. In many cases of rape perhaps it's a form of male revenge on the mother who consented to their mutilation. If this strikes the reader as an obscure argument, the aesthetic reasons for circumcision can be scotched once and for all by a glance at Michaelangelo's David, whose little curtain of flesh at the end of his jewellery does not in any way detract from his beauty.

William Blake said, "The Genitals are Beauty," and if Beauty is Truth then why censor them?

Here are a few reactions to this penile plunder culled at random from friends and acquaintances:

Norman Allen, musician and writer: "I think it was a kind of commitment my father wanted from me. He was cutting a dent in my sex."

The analyst Geza Roheim has an observation that expands this point: "Circumcision is, no doubt a trauma, releasing a tendency in the ego to respect it in one way or another. It is done to tie a boy homosexually to his father, to strengthen 'masculinity'." I asked Norman Allen whether he attributed anything in his character to circumcision. "I think," he replied, "in my attitude to a authority. They can *get* me. Because they did once get me. I feel cowed by authority, and cowed by what happened to me. Any aggression that I feel is a kind of compensation for it."

Jane Firbank, a research psychologist at London University, claimed never knowingly to have slept with anyone who was uncircumcised and asserted that she never would: "They are dirty." When I pointed out that the amount of smegma produced by the pristine gland in an unwashed lifetime probably wouldn't fill a thimble, she claimed that circumcised cocks were "sexier," and that the extra scar tissue she felt operated as a kind of surgically induced "French Tickler" (and so presumably, do penile warts).

Jim Haynes, Professor at Vincennes University, and editor of **Hello I Love You**, a bible of sexual liberation: "I had it done to me, so I just don't know what I'm missing. I guess I'll never know. Just like never having tasted ice-cream, you don't know what it is until you have it."

Joyce Wright, doctor: "It happens here of course but on a slightly lesser scale than in America. I think it's a sign of a predominantly matriarchal society wishing to influence its males right down to their physical appearance."

The poet Sinclair Beiles, who

edited the final text of **Naked Lunch** (and who once organised a boat race of Arab and Israeli poets down the Suez Canal), believes that, "Circumcision is a female plot, perpetrated as a substitute for their true ambition: cosmic castration. It's perpetrated by a load of failed Cleopatras whose ideal is to be surrounded by eunuchs. Its purpose is to desensitise the penis in order to see that the male makes love for longer."

Diana Senior, a printer who was present at the time, retorted that men perpetuate circumcision through not being able to endure that there might be anyone in their family more sexually sensitive than themselves.

Later Sinclair recorded that his grandfather's twin had been circumcised and died through resulting haemorrhages.

Auberon Waugh, novelist and columnist: "I had my son circumcised because *I* was – rather in the same mood as when one goes and cheers Arsenal."

Ian Sweiger, social worker: "Circumcised people are less easily satisfied. I can see that greed, general head problems come from the head of the genitals being bared, shaved, slashed prematurely . . . Come on kid, let's see what your erection's gonna look like . . . Slaa-aash. And people who've had it done want that piece of skin back, somehow or other."

Ron Reed, photographer: "It's a form of sexual repression by society, that's obvious." Ron's laboratory assistant John Scull had found in early adolescence that he had difficulty with erections as his prepuce was too tight, until suddenly he woke up one morning to find that it had split in the night. It healed by itself in a couple of days, and he swore that it wasn't a vampire blow job. Since one of the medical reasons for circumcision is a tight prepuce and erection difficulty, and since this incident seemed to be nature's way of correcting it, I enquired further of David Harvey, Consultant Paediatrician at Queen Charlotte's Hospital for Women, who told me: "The experience of your friend is not an uncommon one," and further,

"we are doing our best to discourage the procedure and I hope it is getting rarer the whole time."

Gary woods, filmmaker: "It's a ploy by the L.A. police department to stop people storing cocaine in their foreskins."

David Solomon believes that it is merely a form of tribal identification, like having your ears pierced or being tattooed.

Bill Levy, anarchist lüftmensch (who has compiled a formidable file on circumcision of which this author has made use): "If people are proud of this tribal scar why don't they wear it outside their pants? It might be done to wipe out the memory of the womb. A lot of people remember the fuck that bore them though their parents might rather that they didn't. There's a poem by Blaise Cendrars called 'My Mother's Belly' which touches on this: 'Si j'avais pu ouvrir la bouche, je t'aurais mordu.' He's referring to his father: if I could have opened my mouth I'd have bitten you. The fuck that bore us is perhaps the thing that our parents are most afraid of us discovering since it's who we are, and circumcision is a tactical shock designed to erase that memory. (It might explain that ancient Yiddish proverb: Dying when young is a boon in old age.)

"Further thoughts: excessive devotion to fellatio is perhaps a soft echo of circumcision. A reassurance that the operation did no harm – the gentle teeth of the fellator, the sexual surgeon, are a euphemism of the surgeon's knife."

He later sent me a strange quotation from the Talmud, quoted by Isaac D'Israeli in **Curiosities of Literature**, 1867, "The distinguished uncircumcised fruit: it is unlawful to eat the fruit of any tree till the fifth year of its growth; the first three years of its bearing, it is called uncircumcised; the fourth is offered to God and the fifth may be eaten," and has expressed the feeling that: "It's done by anti-semitic Jews ashamed of their mark and eager to make it universal."

Jeanne Ruzicka: "There's more *to* men who aren't."

Ken Sheehan, builder, (following Jeanne's observation): "And some of them are still shuddering. Most of them don't even want to be on the planet."

Nicholas Albery: "If the Israelis or Muslims perhaps were running the next lot of gas chambers, then circumcision might be useful. Apart from that I can see no reason!"

Angela Gorgas, painter: "A friend of mine went into hospital at the age of 22 to be circumcised; when I met him again he said: Do you notice anything different about me. I said, Yes I do. He had to have it in a splint, and it was very difficult for him getting an erection."

Ruth Lakofski, architect: "It's to give the nose a chance to grow. After circumcision the facial protruberance will grow to compensate. The nose is important because it's often like a pointing finger saying Thou Shalt Not. Look at Uncle Sam posters."

"The reason for circumcision is to stop you playing with yourself, but self-love is the beginning of love," Barney Platts-Mills, film director.

Alice Lewington, designer: "Most circumcised men fuck like jack-hammers. They fail to appreciate that the vagina is as sensitive as the bulb of their pricks before they were circumcised, and therefore mutual orgasm, sexual symbiosis is messed up."

Peter Holme, shop keeper: "I'm a Methodist, and cleanliness is next to godliness. I did ask my mother once why it was done. I'd been into a lavatory the other side of the Tamar and noticed that other people were different from me. I thought, Christ, these people are aliens! My mother said this is something you don't talk about, you know dear, and when you get older you'll know better, because you'll be pleased it was done and that's why the Welsh are such good singers."

Craig Sams: "Judaeo-Christianity and Islam are both male dominated cults, male oriented, and since women's real and only power is to give men an erection and orgasms, and the end of the penis is the point of contact between men and women, that relationship can be attacked by attacking the penis as soon as possible.

"While sunbathing naked on the beach I suddenly realized in a flash of mingled physical pain and intellectual ecstasy that the one thing that even the most painless circumcision does for sure is to ensure that the man then has to wear clothes for the rest of his life – at least to protect his genitals, as there is no melanin pigment in the phrenum of the penis – although there is plenty in the protective skin. So just in case some crank decides to restore Eden on Earth, he won't get too far because the men will soon have to put on a bit of clothing – and the whole modesty-shame thing will develop again. The Fall is thereby made irreversible."

George Andrews, poet: "I had it done to me when I was too young to protest and I had no say in the matter. I didn't realize how deeply it had affected me until one occasion when I was working as a time-keeper at an air-base in Marrakesh, and I was invited to the house of some Moroccan Jews where there was a circumcision in progress. I fainted. They seemed upset at my reaction and showed me the door. I think my reaction had stirred up their own feelings and maybe it reinforced any doubts they themselves might have had.

"It happened to me because my father was a doctor and circumcision was socially accepted. I think it has a lot to do with conforming and being a member of a tribe. It's a way of transmitting trauma and fractionising the mind: making sure it works at a fraction of its potential.

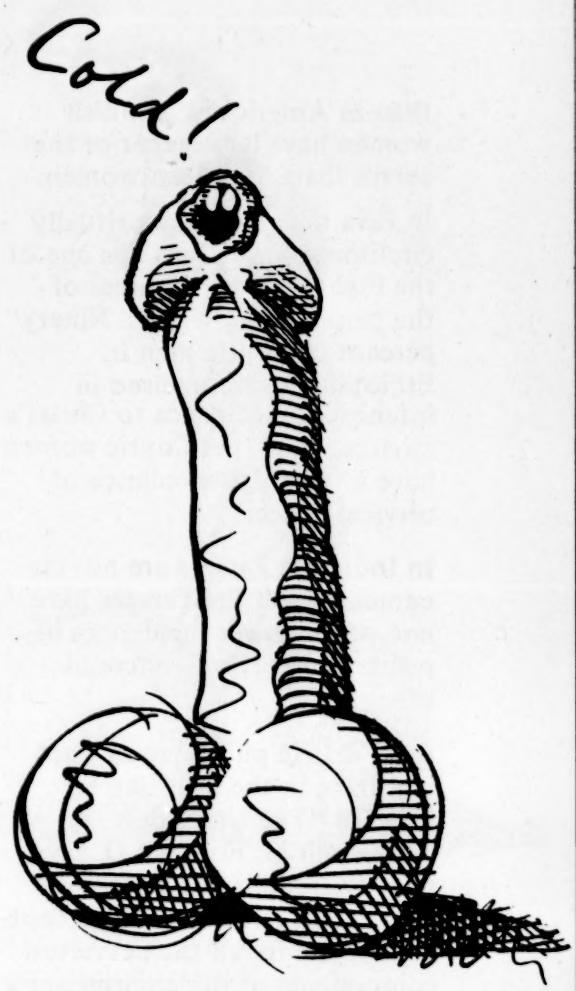
"And anyone who undergoes a shock like that *has* to be affected. Have they ever linked up a baby in an electro-encephalogram to measure its severity?"

Norman Pilkington, writer and associate director of the World Service Authority: "It's the same principle as: get 'em by the balls, and their hearts and minds will follow."

Woody Allen: "If we abolish circumcision, what shall we put in its place?"

Circumcision involves the removal of a large part of the surface skin of the penis. It also involves the removal of the *frenum*, a small gland which is the male equivalent of the clitoris and the most sensitive part of the organ.

Nature is a jealous mistress and it is doubtful whether she made any errors in designing the genitals, the agents of her immortality. If she had – and the foreskin was unnecessary – it would have withered away. But it protects the most sensitive part of the gland, and has within it the *frenum* which is the most finely tuned part of the sexual apparatus. Within the foreskin are sebaceous glands which lubricate the bulb of the penis, producing a substance with the unprepossessing name of smegma which belies its initial merry function. If it's left too long under the foreskin it smells like ripe camembert and is felt to be off-putting, though clearly not to the author of the noble limerick: There



was a young man called Keith/ who pulled back foreskins with his teeth/It wasn't for money/ or anything funny/but just for the cheese underneath. Apart from name-calling, there have been more serious allegations made against this lubricating oil produced by the foreskin, and that is that it is carcinogenic and the cause of cancer of the womb in women. The fantasy, which is unfortunately still current, was knocked on the head as early as 1942 by extensive researches at the National Cancer Institute who found no substance in the claims made against this useful substance. A report in the **Journal of the American Medical Women's Association** of 1962 further points out that if it was true that smegma was carcinogenic, the use of contraceptive sheaths would presumably lower the incidence of cervical cancer. Studies published in this issue show clearly that it does not.

And it was felt that if the purpose of circumcision was to eliminate cervical cancer then one might as well amputate all female breasts to avoid the likelihood of mammary cancer.

In Finland fewer than one man in a thousand is circumcised, yet the incidence of penile cancer in Finnish men is less

than in Americans. Finnish women have less cancer of the cervix than American women.

In Java the women are ritually circumcised, yet Java has one of the highest rates of cancer of the penis in the world. Ninety percent of Coptic men in Ethiopia are circumcised in infancy (in deference to Christ's circumcision), yet Coptic women have a very high incidence of cervical cancer.

In India the Parsees are not circumcised, yet the Parsees have one of the lower incidences of penile and cervical cancer in the world.

In an article published in **Fact** magazine in the mid-sixties, entitled "The Unkindest Cut of All," John M. Foley M.D. says this: "Circumcision provides a convenient and a socially acceptable outlet for all the perverted components of the circumciser's libido. I have had personal experience with the psychopathology that underlies the wish to circumcise. The pitiful wails of the suffering infant are all too often the background for lewd and obscene commentary by the obstetrician to his audience of nurses. Several years ago I saw an infant born with multiple deformities. He could not live for more than a few months at most, but to add to his miseries, this unfortunate bit of humanity had to undergo a thorough circumcision.

"I have seen two medical students fight over the privilege of doing circumcisions on the new-born although these same students showed neither interest nor aptitude for opening boils or doing other surgical tasks.

"In 1951 I witnessed an autopsy on an infant who had died from an infected circumcision – a death rendered even more tragic because the mother had tried to persuade the obstetrician to spare her infant the ordeal."

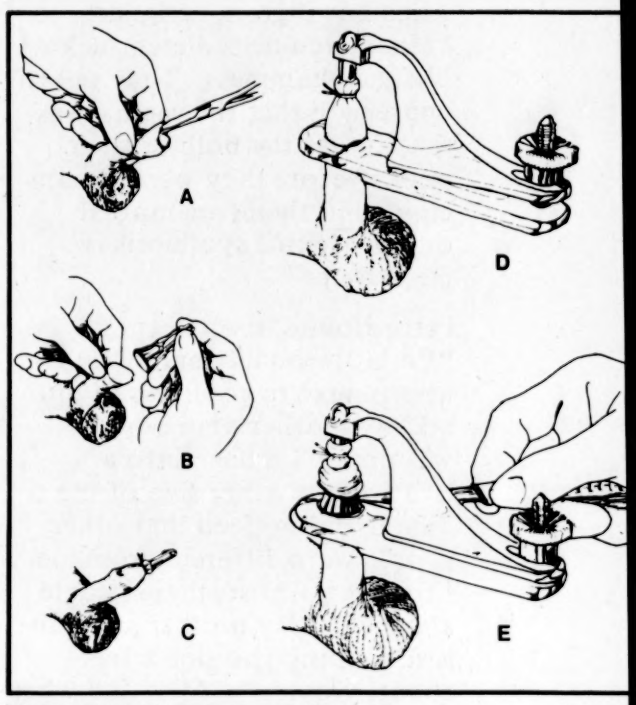
Angela Naar's child Sebastian was born in the Roosevelt Hospital, 10 September 1969, and she was singled out in maternity classes when she announced that if her child was a boy that she was not going to have him circumcised. The class was then lectured on the merits of circumcision and Angela Naar was censured and accused of having made a "dirty and silly decision." When the child was delivered, a son, she had to fight for him to be left alone against the pressures of doctors, nurses and interns who couldn't believe that she didn't want him tampered with. The operation, as far as she could gather, was automatic on the fourth day of birth.

Foley thinks that "two million assembly line circumcisions are a monument to the gullibility and stupidity of the American public." It's a routine operation, on which the surgeon's fee has a considerable bearing.

Great Britain too is not immune from stricture. Research amongst mothers who consented to the operation reveal the following visionary reasons for their complicity: "I thought it was a law." "The doctors just did it." In England and Wales between 1942 and 1947 (unfortunately no more recent statistics are available) 16 children died as a direct result of the operation which can cause haemorrhaging, meatal ulcers; the sensitive exposed glans sometimes becomes infected with diaper rash, and there are other complications: sepsis, eczema of the glans and meatus, meatal stenosis, surgical adhesions, penile diptheria, edema of local tissues, seepage of blood, and injuries of the gland or scrotal skin. Gangrene often occurs on incompetent removal of the circumcision clamp. Circumcision is obviously contra-indicated for people with haemophilia but it occasionally has been done, and the baby bleeds to death. David Harvey F.R. C.P. of Queen Charlotte's admits to such an incident occurring in his own hospital.

Foley continues: "I myself do not doubt that among the biggest boosters of circumcision are neurotic females whose unhappy sex lives prompt them to injure a man where he feels it most."

"Then Zipporah took a sharp stone and cut off the foreskin of her son and cast it at his



Diagrammatic Representation of Circumcision with the Comco Clamp. (From Circumcision **reviewed on p. 77.)**

feet, and said, Surely a bloody husband art thou to me." (Exodus, 4.25.)

"And Saul said, Thus ye shall say to David, the King desireth not any dowry but a hundred foreskins of the Philistines, to be avenged of the King's enemies. But Saul thought to make David fall by the hands of the Philistines, Wherefore David arose and went, he and his men, and David brought their foreskins, and then gave them in full tale to the King, that he might be the King's son in law. And Saul gave him Michal, his daughter, to wife."

Voltaire, noticing this passage, commented that perhaps they were given to the bride as a necklace. A Kali rosary of genital scalps.

It is only women who give birth to men and despite the watered down revival of the goddess cult in the form of Women's Lib, which often has as its sultry undertow the proposition that women can do no wrong, it is inescapable that an enormous quantity of women allow the male fruits of their womb to be immediately tortured and mutilated.

The senses of a new-born child are open, extra-sensory. Their unconsciousness is unconditioned and unprotected. They take everything in without dis-

crimination. An incredible amount of stimuli are taken in to what is almost an hypnotic state. Leboyer, the author of **Birth Without Violence**, delivers children without fluorescent lights, quarrelling nurses or the smell of ether and clanging metal trolleys. He finds that they become brighter and happier. While he is with them he's found that they're incredibly sensitive to other people's moods. They can pick up on people's intentions towards them. Someone wielding a circumcision kit is immediately registered: negatively.

Babies are born in a state of euphoria, in a fired reality, a permanent hypnagogic state in which they feel they can touch the moon. One purpose of circumcision must be to shrink them to life-size. "This is where it's at, baby. Look down, and see what we done."

Freud believed that circumcision left severe scars on the personality, and found impotence much higher among the circumcised than the uncircumcised. He had his own circumcision certificate framed, but refused to allow any of his offspring to be chopped. This was uncovered through enquiring of a lady who'd just extricated herself from a dangerously sado-masochistic relationship with one of his grandchildren, which had involved frequent visits to hospitals and plastic surgeons (names and addresses withheld by request): "No, his father wasn't circumcised and he isn't, but as far as I'm concerned you can staple it up."

The redemption of Freud's grandchild's foreskin has clearly placed no halo around his cock, and it will obviously be many moons before the foreskin is accepted, and before the sado-masochistic yearning for its removal disappears.

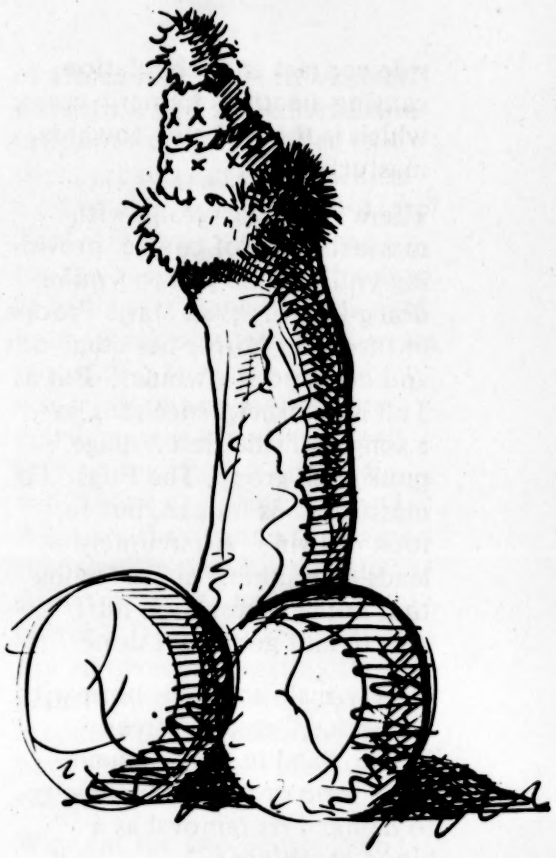
Another picaresque anecdote about circumcision appears in **Oui** magazine, 1976. "What is reputed to be Christ's foreskin is lavishly contained in a ruby studded casket in the Vatican and occasionally trundled out for the enlightenment of Catholic aficionados, along with what is claimed to be the Blessed Virgin Mary's foot. Who kept it and why, is not explained. J.C. clearly ascended into heaven quite happily without it."

It's odd that the Feast of the Circumcision, whatever that meant, took place on the same day as the Feast of the Mother God (according to the **Phenomenon Book of Calendars**, 1977). Clitoridectomy was perhaps the removal of what is male in the female, circumcision the removal of what is female in the male. The foreskin is a portable cunt.

Since Christ was circumcised, St. Paul suggested that it was superfluous. He had taken our sins upon himself, but many Christians continued the practice. It became an upper middle class fetish in England during the last hundred and fifty years, and in Victorian agony columns was felt to be an atonement for the "guilt of original sin."

This hardly needs to be dismissed, but in my notes I've found an unfortunately unattributed claim that circumcision may lead to things far worse than original sin: "The dulled glans longs for fellatio, it longs for the cunt that is as tight and comfortable as its lost foreskin. It longs for perversion. Perhaps it often longs for the cunt of a child, or as in the case of Peter Kürtner, the vagina of a new born infant."

Kurtner was a notorious 19th century sex-killer with whom Hitler became preoccupied, and en route I've discovered two oddly polarised views: first that an article opposed to circumcision ran the risk of being dubbed anti-Semitic (voiced by non-Jews, and presumably discountable since the operation is originally Egyptian), and secondly that it's possible that Adolf Hitler was circumcised and resented it all his life, and that he littered the planet with dead Jewish flesh in order to compensate himself for his loss. You circumcised me, I'll circumcise you. This view was voiced by a Jew and is apparently hinted at in various lurid accounts of the Third Reich. Freud believed that the castration complex, stemming from



circumcision, was the deepest unconscious root of anti-Semitism "for even in the nursery little boys hear that a Jew has something cut off his penis."

Nothing in this article is intended to leave the circumcised with an inferiority complex. Life goes on, though Wilhelm Reich believes that the condition is psychically irreversible: "Once a tree has been forced to grow a crooked trunk no power in the world can straighten it out."

"Every great reform," Henry Thomas Buckle stated, "consists not in doing something new but in undoing something old." Presumably in a family situation, father and son bathing together, it's slightly complex for the father to explain why his cock has been banjaxed and his son's hasn't. It's easier if the disease spreads. We're both in this mess together.

It's weird that one of the motives for circumcision, preventing masturbation, has precisely the opposite effect. Joseph Lewish, **In the Name of Humanity**, N.Y. Eugenics Publishing Co ., 1956: "Medical investigation in the field of sexual disorders has discovered that the removal of the prepuce is a definite contributing cause of masturbation. By the removal of the prepuce, the head of the penis is exposed to out-

side contact and stimulation, causing erections in many cases, which is the first step towards masturbation."

There's nothing wrong with masturbation, of course, providing you like the person you're doing it with; even Marje Proops in the **Daily Mirror** has come out and declared it a winner. But as Tuli Kupferberg once sang in a song with the East Village punk rock group, The Fugs: To masturbate is human, but to fuck is divine. If circumcision leads to wanking, and a feeling that home is best, sure nuff nuthin aint gonna get done.

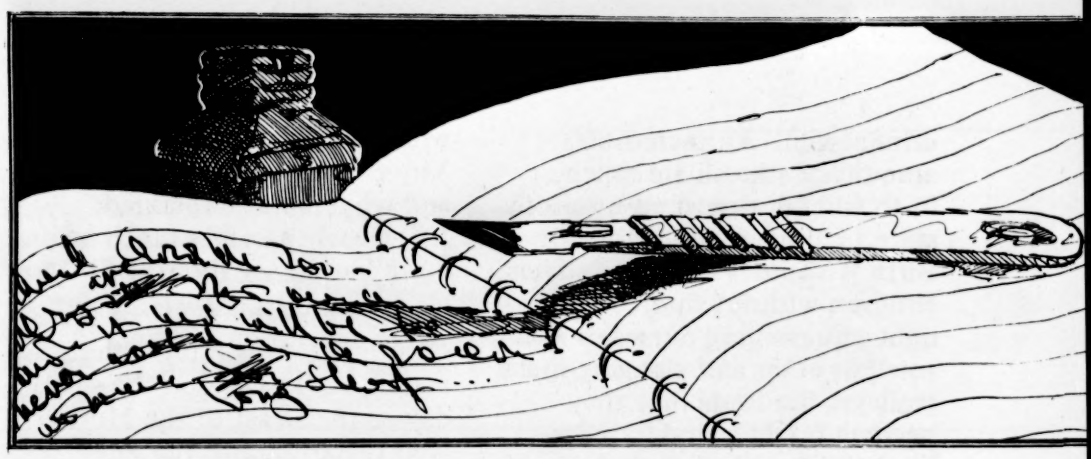
"Every male animal is born with a prepuce," cracks Mircea Eliade, "and lucky for them there is no savage Animal Deity to demand its removal as a blood atonement."

Should we circumcise horses, dogs, cats . . . goldfish? Has nature really been barking up the wrong tree?

Dr. Allen Edward, in two papers, one entitled "Circumcision Pro and Con," and another entitled "Self Stimulation amongst Arabs and Jews" (from **Sexual Stimulation**, ed. R.E.L. Masters, Sherborne Press, L.A. 1970), finally puts the kibosh on circumcision's success in suppressing masturbation:

"Eternally united with the masturbation mystique is circumcision mania, which evolved as a sacrifice of sinful flesh to a jealously phallic god. Removal of the foreskin, cabalistically symbolised in the evil serpent, was a removal of 'original sin' (this being self-abuse/infantile eroticism). Amputation of that peccant part, which was thought to provoke excessive if not unnatural erection and manipulation by its constant contact with the highly susceptible glans, symbolically cleansed the spirit of fleshly lust – readying on for obligatorily routine reproduction – not the vain pursuit of pleasure – whence the arabic *tuhur* 'purity' for circumcision.

"Of course, as with all such sophisms, the direct opposite was effected – or nothing was effected at all. An exaggeration of narcissistic libido was concentrated in the mutilated penis, made hypersensitive by the unhealthy wound, resulting in irritation and erection, or at least in mild traumatism. And history does not fail to record in decisive detail the violent lustfulness of the circumcised with their harems and mass revilements, their bestialities and bisexualism."



He further asserts in the second paper: "Deprepucisation puts a temporary halt to masturbation in Muslim boys. Its psychic effect is to increase the desire rather than to diminish it, owing to the extreme masochistic anxiety and possible castration fears produced by a painful penis and complete deprivation of pleasure, and often a child will masturbate more intensely after he is circumcised than ever before, if only to reassure himself that nothing was lost if not gained."

It was recently reported in **Time** magazine that a man from Nebraska had filed a $100,000 suit against his mother for having consented to his circumcision. Loss of sexual pleasure was the damage to be assessed. She somewhat wittily filed a counter-suit for nine months back rent.

The results of the case were not reported, but there have been several successful suits against negligent doctors: doctors who circumcise without permission, and doctors whose incompetence has led to permanent deformities and even death.

"The circumcision of a new born boy is a spectacle so appalling and revolting in its cruelty, that, on their first encounter with the ordeal many robust medical students faint. The infant is tied down securely to a circumcision board, with its genitals exposed. Next the entire foreskin and much of the penile skin is pulled through a clamp, and as the clamp's screw is tightened the skin is crushed off. As much as eighty per cent of the total penile skin is removed in this country (U.S.). No anaesthetic is ever used. The infant struggles and screams, and often vomits and defecates, before lapsing into unconsciousness. As a result of circumcision some infants die. Countless thousands are doomed to become sexual cripples. In 1958 a four-year-old boy underwent surgery for an undescended testicle. The surgeon, noticing that the child still had his foreskin, just couldn't pass up this tit-bit. The circumcision failed to heal, and five days later the entire penis sloughed off. The parents sued for $150,000 and settled for $80,000." John M. Foley, **The Unkindest Cut of All.**

In a book about Ezra Pound, Charles Olson records him in St. Elizabeth's Hospital suddenly leaping up and ranting: "It must do something after all them years and years, where the most sensitive nerves in the body are, rubbing them off, over and over again."

The foreskin is a device skillfully designed by nature to protect the delicate head of the immature penis, and Foley claims that "the adamant insistence of some women that it is cleaner is either to cover up their own laziness in teaching genital hygiene or worse, to cover up their own penis-envy which was their motive in requesting the operation on their sons."

Penis-envy is a slightly passé notion, and Reich believes that it's all due to something much more atavistic: that the genitals are seen by the character-armoured authoritarian as a

source of chaotic evil, with a will entirely of their own, and circumcision is a way of bringing them in line. He felt it indicated a hatred of life.

Jack Harnes in the **Journal of the American Medical Association** echoes this: "Why did my physician father have me circumcised? Did this represent an unconscious attack by my father on my oedipus complex? Was he aware of the future decreased pleasure the operation would incur, and did this represent hatred of me? Did he, with my mother's consent, subsconsciously want me castrated?"

In almost all American birth books, circumcision is mentioned with approval, and even the so-called hip ones on natural child birth have little derogatory to say about it. America which treats the rest of the world as a bit-part actor in a snuff film. America which has six percent of the world's population, and consumes forty percent of its goods. America the rapist. In the case of ninety-nine percent of all her male offspring: their first memory of someone else's interest in their organs of love is for them to be disfigured painfully, the pretty little fronds to be cut away revealing a raw one-eyed vulnerable little bulb untimely ripped from the womb of the foreskin. America riddled with sublimated penises: rockets, guns, and skyscrapers because their penises are incomplete.

"What a fuss about a little piece of skin." Mmm. But should you have your eyelids removed because they contain tears, or should your nostrils be removed because they contain nasal mucous? When you first land on spaceship earth, fully equipped, and an etherised loon stumbles towards you and hacks a bit off you, what do you think? That you've been trapped by a gang of marauding souvenir hunters? That it's a sign of further amputations to come? That to use that part of your equipment is a crime amongst the inhabitants? That you came over-dressed for the occasion? That the man in white was going to transplant your foreskin onto someone else who didn't have one and who was more important? Do they worship some strange god and is this a sacrifice to him and will he one day want the rest? What are they trying to tell me that the life they have got in store for me is a pain in the crotch? Do they hate me? I'm an invader upsetting their plans? Maybe this little attack is some kind of catharsis, they have this ritual because they really want to kill me?

Why did the two people who invited me here agree to this? What else have they got up their sleeve?

The first cut is the deepest. ■

Circumcision

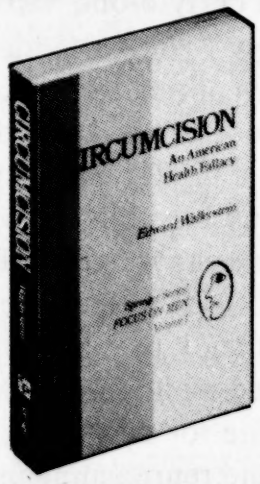
The first step to being a responsible parent (after responsibly deciding IF you want to be one at all) is to become informed about all medical practices which will affect both you and your baby.

Birth control, unmedicated husband-coached childbirth, alternative and home birth settings and breast feeding are all areas that many women are now able to make decisions about, but circumcision is still a fairly untouched subject. Many people don't even know exactly what it is, and that it is optional.

This book is possibly more than you need to know, but certainly enough to help you decide whether to authorize this optional surgery on your newborn baby. All aspects of the question are covered, the history and customs, medical justifications, psychological effects, as well as the actual operation and detail as to what the penis looks like both ways. Even female circumcision, not uncommon in some African nations, gets a chapter. The worst thing about circumcision in the U.S.A. today is that it is rarely treated as a decision at all, and is usually advocated by most physicians as a "routine" procedure. In fact the determination is solely the prerogative of the parents.

The choice my husband and I made was complicated by being Jewish, but with this book, and some surprisingly volatile **CQ** *lunchtime discussions, we decided NOT to cut. Something this important to your child should be seriously thought out, using facts, not rumors or superstitions. It isn't often one has an option with surgery and it is quite interesting to find out why routine "health" circumcision is so prevalent in this country and nowhere else. Don't rely on just your doctor's opinion (he may not have really researched or thought about it). You owe it to your son to do the research to back up whatever choice you finally make. The decision to not circumcise is reversible, but circumcision is irrevocable. He might ask you where it went one day.* —Andrea Sharp

Circumcision
(An American Health Fallacy)
Edward Wallerstein
1980; 281 pp.
$9.95 postpaid from:
Springer Publishing Co.
200 Park Avenue South
New York, NY 10003
or Whole Earth Household Store



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One possible remedy for lack of hair and dental hygiene would be the removal of these parts, since people can and do get along without them. However, such a drastic course of action has *not* been proposed as a general panacea for a lack of hygiene. Yet this is precisely what is being recommended when circumcision is rationalized as a panacea for male genital hygiene.

•

The Jewish ritual underwent several changes over the centuries. Originally the operation consisted of one and only one element, cutting off the tip of the prepuce. This was called *Milah* and was in use for almost 2,000 years. It was changed during the Hellenic period (circa 300 B.C. — 1 A.D.). At that time the Greeks engaged in a concerted effort to convert Jews to paganism. One aspect of this conversion was to obliterate evidence of the simple Milah circumcision by blistering the tip of the remainder of the foreskin in order to enlarge it. So many young Jews adopted this practice that the rabbinate of the period decided to alter the surgery in order to make it impossible for a circumcised male to be made to appear uncircumcised. This was accomplished by a procedure known as *Periah*. The entire foreskin was ablated and the inner lining and frenum torn by the specially sharpened fingernails of the ritual surgeon (mohel) — hardly a sanitary procedure!

GREG and I

by Penelope Wickersham

Illustrations by Melinda Gebbie

"What was a time in your childhood you'd like to live through again?" That was a question I asked in CQ *once, and this was one of the answers from a 28-year-old household worker, child carer and part-time writer.*

–Anne Herbert

THERE ARE VERY FEW TIMES IN MY CHILDHOOD I'd care to relive. Most of the time I was nervous, ill or wishing I could turn into the girl down the pike who had curly blond hair and a Minnie Mouse voice. But for a few years I attended a Friends' School in a very small town about 15 miles from my home. I remember that school as noisy and dusty. I think it was near a bakery and a minimum security work house. Or maybe they baked bread in the workhouse. I just know there was always a hot smell of crust in the air when we lined up out on the cobblestone walk to wait for the VW bus that took us home, and across the street were these bored men in drab clothing who always seemed to be in line for something too, and over the sound of Teacher Elaine reproaching us for squirming was the sound of some dude growling okay, close it up, there, and so on.

ON THE PLAYGROUND was this huge, round smooth thing that they have on playgrounds for kids to crawl through. Pipe, I guess it was. It was located near the very back of the yard, along the high, wooden fence. Well, in my class there were mostly boys. So they always raced first thing to this pipe – we called it a fort – and that was that. But about once a week the girls would get good and mad and during lunch we'd plan a strategy. The fastest runner was Laura, the principal's daughter. The best fighter was Mary, who had four older brothers. The burden was Patty, who at age seven fancied herself a model and wore petticoats every day. I was very loyal and never cried, even when Eddie bit me so hard it nearly drew blood. Well, none of us wanted the job of guard. I mean, once the fort was taken and converted into a split level house with two babies, who was to keep out Eddie, Pershing, Greg, et al.?

Okay. I was always on the outer edge of the group. I pretty much took what was handed to me and considered myself lucky. I would guard. We barely fit inside there, all of us. With Patty at the very back, Laura and Mary in the middle, and me at the mouth, we were cramped. I knew who was who from the knees and shoes after awhile. Patty was the Mom, which meant she was on the phone and doing her nails, and DON'T BOTHER THE MAID NOW, and Laura was the Dad because she hated women, and Mary was the baby because she could scream the best. And my back was to the whole business, as usual, and I kept watching trouser legs and dark shoes with the light dust of the yard gracing them, and every so often an incredulous red face would pop down at me and I'd say something and the face would laugh and a handful of dirt would explode on me. Now, I never minded throwing stones or dirt at Eddie. He was little and ugly and had this nauseating smell about him, like a severe head cold permanently camped in his bulging, red nose. So I aimed at his knees with relish, biting my lips, praying for a direct hit on his pudgy knee caps, sorry only that I could not see his reptile eyes wincing in pain. And I did not really mind chucking dirt and sticks at Pershing, who had once pulled a chair out from under me during dinosaur studies. And Steve was Pershing's good pal, so though I

had no personal complaints against him, he was rotten, too.

But there was still Greg. Greg was a different matter. Greg and I. Greg was a boy. He was about three inches shorter than I and very slim and quick. He wore a regulation military haircut. His eyes were gray-green, always serious. He rarely laughed. He was smart in everything. We rode home in the VW school bus together, and ours were the farthest stops, so we were alone in the middle seat for miles and miles of bumpy, curving country roads. Did you know a VW bus has at least 8000 little irregularly shaped hunks of metal that come together to form its middle seat? Well, all of those pieces are stuck up against each other with screws, nuts, bolts, shiny sharp knobs everywhere – on the doors, the back of the seat ahead of us, holding armrest to door, ashtray to seat, window crank to inside of door. And every one of those bumps had a meaning to Greg and me. I sat always on the passenger side, he on the driver's side. I was in charge of communications, he in charge of attack and medical care. We carried our cargo and supplies in the back, our animals in a special unit beneath us. All the dozens of buttons on my side pertained to calling and receiving calls from allies or enemies. These were mine, entirely. All the buttons on Greg's side controlled bullets, poison gases, gates that released attacking monsters and the Secret Killing Thing, which to this day I cannot describe, since, thank God, we never had to use it. All the buttons in the middle were Emergency, and these could be pressed by either of us, whichever one was not knocked out by the first wave of rockets. These emergency buttons called our animals out of their cells, and our German shep would lead them in winged attack and rescue us, perform first aid, and then modestly retire and return us to command. They knew their place, did those animals.

Now you must understand that this was all very business-like. Greg and I were chosen by the Leader to do these jobs because of our bravery and mastery of moving the ship. No affection allowed between crew members. You couldn't take your eyes off your controls for an instant. No small talk between annihilations. And we never revealed our special work to anyone else at school, though this was never spoken as a rule. We both sensed the importance of keeping our yaps shut in front of Patty, Eddie and others not favored by the Leader.

So when Greg's trouser legs would appear suddenly in front of me, squatting there in the kicked up dust, what was I to do? He was my shipmate. But he was a boy. He ran with Them. He was lobbing crushed up leaves all over Patty's pleated skirts. But still, over the indignant screams of my charges behind me, I could only hear his voice as he uttered what he thought were his last words when the poison gases got him one day. Goodbye forever, sweet love. That's what he said, and I think I looked over quickly at the Black driver to see if he heard. He was humming and did not seem to notice our tragic farewell. So I hesitated, feeling the wind cool and full of grainy stuff washing over me. It was a triumphant dilemma to have. Secret loyalties. A boy who had called me something besides dummy and jerk-o. Usually I pretended to try to hit Greg, but after all, he's so fast. And he would dart around, sort of galloping backwards until I could see all of him across the yard. His mouth would be working slowly, his small nose flaring as he breathed. Missed me, missed me, now ya gotta kiss me, he'd whisper, but in such a way that somehow only I would hear, and I'd shake my gloved fist at him as he turned to run off. ■

LEARNING TO LIVE WITH AMBIGUITY

by Stephanie Mills

ILLUSTRATION BY K. O'NEILL

ANY CREDENTIALS I have to be pontificating here tonight, I began to acquire eleven years ago, when I gave the commencement address at my alma mater across the bay. There, before a relatively huge graduating class of 75 other young women, I explained why I thought "The Future Is a Cruel Hoax." I had become quite concerned with environmental problems during my last year of college, feared that our future was imperiled, and felt that it had become necessary to sound a general alarm.

I focused on overpopulation at that point for two reasons: one, the brilliant persuasion of Paul and Anne Ehrlich; and two, my naive yearning for explanatory principles, preferably simple ones. The Ehrlichs' **Population Bomb** gave my innate pessimism plenty to resonate with. In my speech, I gloomily predicted widespread famines and plagues, said we were breeding ourselves out of existence, predicted our impending extinction within less than ten years, and announced that as a result of all this mess, "I am terribly saddened that the most humane thing for me to do is to have no children at all." For both altruistic and selfish reasons, I continue to honor that commitment. I am happy to report that I was wrong on the extinction forecast.

Saying all those dire things and opting out of parenthood at a fairly early age made me

Mills College is a small, private, somewhat arts-ish women's college in Oakland, California, where the senior class elects each year's student speaker for graduation day. The winner typically runs down an innocuous list of fond memory and high hope. In 1969, word spread among the graduating class that senior Stephanie Mills actually had something substantial to say. So they elected her, and she gave a speech of grim warning and low hope. She said people had "spread like a cancer across the Earth" and she didn't want to add to the malignancy by having any children. Unexpectedly, the daily papers picked up the story and she became an instant living symbol of the population control movement. She made 80 speeches about population control the following year. Many people probably still vaguely remember her as "that coed who wasn't going to have kids."

This memoir of what happened after her speech at Mills (which only coincidentally shares her name), is based on another graduation speech – one given last year to World College West in Sausalito. In addition to being CQ*'s assistant editor, Stephanie is an accomplished writer, a veteran salon keeper (see* CQ*, Summer, 1974), an inveterate punster, and a person who makes conversation seem like the highest of art forms.*

–Art Kleiner

instantly somewhat famous and catapulted me into the environmental movement, in which I have maintained an interest, and found myself occupied, for the last decade.

These ten-plus years have taught me the danger of explanatory principles, and that they don't make ecology like they used to. Ten years ago, it was possible to succeed as an environmentalist on the strength (and flash) of one's pessimism alone. Pessimists are never disappointed, I reasoned. Only lately has it dawned on me that optimists aren't either. Ecocatastrophe was news then, and it lodged a feeling of hopelessness inside me. I believed what I was saying; it wasn't empty rhetoric. I felt hoaxed, cheated of a nice safe future. For me to have believed that there ever was such a thing as a nice safe future should tell you something of my ignorance of history at that time.

Empires come and go. Environmental exploitation is nothing new, and war is the rule, not the exception. If the seriousness of the consequences of these typical human activities has increased, so has the scope of our attempt to change. I can accept that now, but in '69, Paul Ehrlich's quip that "Nature Bats Last" seemed about right, and I figured that we, the visiting team, were about to lose in disgrace. Fine with me. I would have preferred to see the apocalypse than to work on through the task of living in a less than perfect world.

I WAS AN IDEALIST. I chose to deal with humanity in the aggregate, and to blame it so. Therefore, in addition to being a serious problem, overpopulation was tailor-made for my psychology.

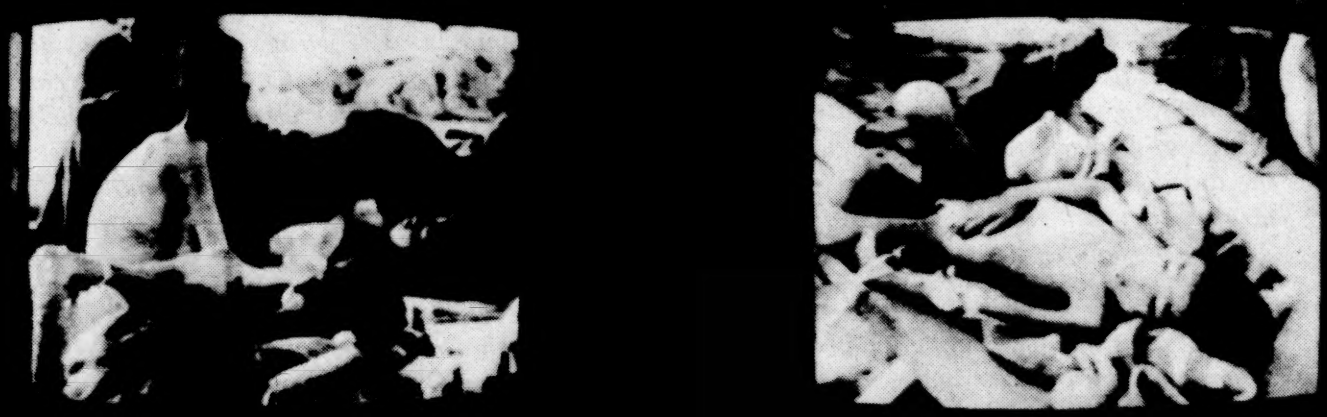
A very flattering appointment to the Board of Directors of the Planned Parenthood Federation of America enabled me to pursue and broaden my concern more or less actively for six years. My colleagues on the board were an impressive group of men and women, possessing a variety of expertise and a lot of civic-mindedness. Our stated goal was to make every child a wanted child, and, discreetly, to educate the prospective parents of the world to want fewer of them. At the time I believed that birth control was an unmitigated good and population control a necessary evil. And, because I had no doubts about the high quality of my motivations, I worked hard at institutionalizing my own brand of good and evil. It seemed like a simple enough proposition. At that time, my tolerance for ambiguity was nil. I didn't understand that it is impossible to do only the thing you want to. Every deed, no matter how well intentioned, has unpredictable consequences.

Working at the national, and sometimes the international level, the Board, of necessity, looked at the big issues: the population explosion, the revolution in sexuality. We hoped to serve the millions of women and men who needed contraception, and to secure for them the right to abortion. Because they seemed, at the time, to be the most effective and (from the clinician's standpoint) efficient means of birth control, we promoted the use of pills and IUDs. They appeared to be panaceas for the problem of unwanted pregnancy. But as my friend and employer Stewart Brand astutely put it, "Panaceas are always poison."

Barbara and Gideon Seaman's book **Women and the Crisis In Sex Hormones**, which deals with the health consequences of pills and IUDs, and with Planned Parenthood's role in overselling them, made me realize that I had wholeheartedly endorsed a birth control approach that was no panacea.

A twenty-year old skier, a pill user, breaks her leg, has it set in a cast. A blood clot develops in her immobilized calf, she can't feel its warning pain, and it travels to her brain, causing a stroke and paralyzing her.

A thirty-five year old lawyer, having worn an IUD for seven years with little apparent ill effect, begins to try to get pregnant, having established her career and decided to start a family. But she can't. She learns that her fallopian tubes have been scarred as a result of



a long-simmering case of pelvic inflammatory disease, aggravated by the device.

Things like these really do happen. Not a lot, but once is enough if it happens to you. I feel some responsibility for them as well as for whatever progress women have been able to make as a result of being free to choose whether or not to become mothers. My point is that when you get to messing around with social change, you have to be ready to acknowledge your victims as well as your victories. My experience has convinced me that it is impossible to know surely that your cause is good.

VEN MORE CONFOUNDing, I find that close up, the villains appear less villainous, their evil deeds less comprehensible.

I've got a friend whom some might call a war criminal. He worked for the CIA in Cambodia during the war in Viet Nam. His efforts were a small contribution to the destruction of an entire people, the final outcome of the Nixon-Kissinger sideshow in neutral territory. My friend married a Cambodian woman, wore a sarong, lived in a hootch, and, when he had to, killed a Vietnamese officer with his bare hands after an endless harrowing cat and mouse chase around a village well.

My friend is a thoughtful person. He believed in what he was doing over there. He was incapable of thinking it all the way through, just as I was.

After a few years of nightmares that had him drenching whole mattresses with sweat, and a few more years of trying to ignore his deeds, he's found a way to atone. He's working with Cambodian refugees in San Francisco. Just a family that he's able to help in his spare time. He speaks their language fluently: "I spend an hour or two trying to translate Cambodian into English. When they say 'hello' they're really saying 'Good to see you and how's your health?' They say things like 'Go in peace' instead of 'Good Afternoon'." He knows and admires their culture; he wants to enable them to communicate their way of being more clearly, and he is one of the few do gooders around with a concrete understanding of the difficulties of their situation here. For instance, a lot of the Cambodian-speaking welfare workers helping the few refugees who made it out are Vietnamese who have a long-standing, and reciprocated enmity with Cambodians.

My friend knows he can't patronize these people. "I want to be the family's friend. I think they need to be treated with dignity. I don't want to promise them stuff that I can't change. I've got to get down off the white charger. I know it's gotta be neat for somebody to watch it, but I'm not doing it for an audience." He is helping them because he needs to. Selfish reasons. He knows exactly why they got here and what they left behind. And he seems to know the difference between saving his own soul and assuaging his guilt. That difference lies in forward motion.

This friend has a lot of terrible insights to share, and I like him for it very much. When we get to talking at the level of mortal consequences, I get terrible insights too. They undermine my certainty and therefore make me less innocently dangerous than I might be. Like me, he was involved in what he thought was a good big cause. Like me, he played a small part in a big change and now finds that doing good is in the particulars.

IT WAS TALKING with this friend about his taking of human life that I realized that abortion may be woman's version of killing in combat; this analogy makes sense to me at least.

I value the right to life movement for calling attention to the spiritual consequence of abortion and for asserting the marvelousness of conception

and the sacredness of every single germ of life.

That doesn't mean I wouldn't have an abortion if I needed to. It doesn't mean that I agree with the policies the right to life movement seeks to impose on this country. It does mean that I would appreciate the gravity of the choice. I want to live in a society where people do make grave choices, exercising individual conscience. Dictating those choices and proscribing the exercise of conscience thereby causes it to atrophy. Such mortal choices make us confront a reality which is forever more complex and less than ideal. De Beauvoir put it fiercely in **The Second Sex**: "They learn to believe no longer in what men say when they exalt women or when they exalt men: the one thing they are sure of is this rifled, bleeding womb, these shreds of crimson life, this child that is not there. It is at her first abortion that woman begins to know. For many women the world will never be the same."

Even the right to life movement has its fatalities – the six poor women who have died from botched back-alley abortions since the withdrawal of Medicaid funding, and the unwanted children who have unhappy lives (not all do). The right to life style of idealism and my old ecomania demand and demanded oversimplification and a denial of the commonplace, quotidien nature of most human decisions.

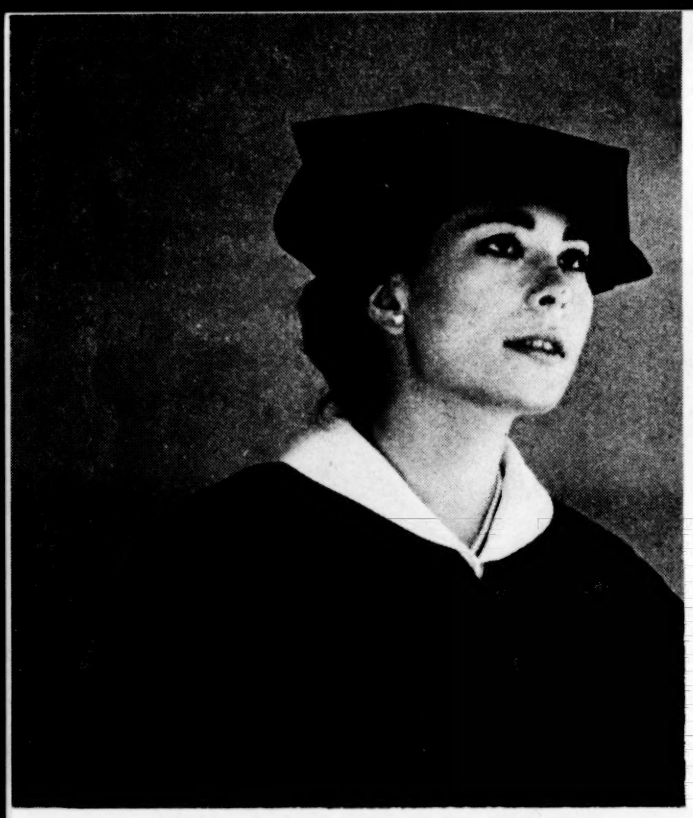
THERE WAS A TIME when my family plannish idealism caused me to despise any right to lifer. But my current attempt to embrace reality finds me with a hero, Mother Teresa, who is a right to lifer extraordinaire.

In her remarks on accepting the Nobel Peace Prize, she said, "To me, the nations with legalized abortion are the poorest nations . . . the greatest destroyer of peace today is the crime against the innocent unborn child." On that, she and I would have to agree to disagree. One of her lay assistants was quoted in a **New York Times Magazine** story as saying, "Mother has her beliefs and she holds them sincerely and anyway, her specialty is love, not moral philosophy."

For saints, we make allowances. Her particular acts of mercy, her charity, can be a beacon to us all. To bathe and feed and dignify the dying of Calcutta's poor is as real as it gets. But her logic is impeccable. The **Times'** Michael Kaufman put it thus: "It is part of Mother Teresa's very concrete philosophy that the world needs the poor as a reservoir of love." She says, "Our poor people are great people, a very lovable people. They don't need our pity and sympathy. They need our understanding love and they need our respect. We need to tell the poor that they are somebody to us, that they, too, have been created by the same loving hand of God, to love and be loved."

Objectively viewed, Mother Teresa looks like Sisyphus. She may never make statistically significant inroads on the problem of poverty ("We ourselves feel that what we are doing is just a drop in the ocean."), but the kindnesses she and the 1800 sisters of the order of the Missionaries of Charity, which she founded, are drops sparkling over an ocean of woe. The sisters and their 120,000 coworkers are adding immense grace to this world by being patient, present and joyful here and now in schools, hospitals, youth centers, orphanages, and homes for the elderly and bewildered in over 25 countries.

Eleven years after announcing the apocalypse I am coming to realize that I probably won't get to watch the End of the World in my lifetime. I see that there's work to do, and have learned that doing unalloyed, or sufficient good is another impossibility, unless that good is so specific that it may seem insignificant to the faithless and invisible to demographers. As Mother Teresa put it: "I do not agree with the big way of doing things. To us what matters is an individual. To get to love the person we must come in close contact with him. If we wait till we get the numbers, then we will be lost in the numbers." →



DON RYAN

Stephanie Mills (above), speaking at Mills College, June 1969. Stephanie (right) washing up after a ***CQ*** *party, September 1980.*

I still worry about population. I wanted to do something to change it. Perhaps I did, but I also abetted some bad, to the extent that my overenthusiastic embrace of global solutions to problems which are poignant and played out in the lives of billions of individuals led to other problems. To the extent that my little contribution enabled more women to be moral actors and to make serious choices in their lives, I'm proud.

I'm still more willing to talk about what's wrong with the world and to make helpful suggestions for you all to follow than to make those helpful changes in my own life.

I am daily entertained by the uncertainty and the gentle mocking irony of my lifestyle. Uncertain: maybe I should have a child someday, take a little chance on the future, and admit some of the life enhancing ("growth-demanding," one friend called it) chaos that babies bring. Ironic: I love city life, being part of the imperium, reading in bed by electric light, driving my car, and eschewing the hands-on toil it takes to restore the earth.

That makes me an ordinary human and is beginning to give me a little patience with the world's slowness to reform. A Gandhi or King only comes along once in a generation or so. And even they aren't perfect on close inspection. But their conscience, their courage, and their adamant nonviolence are ideals that any of us can try to approximate, each in our own ways.

BACK IN APRIL, WE got a letter from Vip Short, a student of chiropractic who'd been arrested in a mass action at the Trident submarine base in Bangor, Washington. He and 112 others arrested were putting their freedom on the line to protest the arms race, specifically the counterforce or first strike capability, the Trident subs, and other weapons, like the Cruise and MX missile systems, represent. He wrote: "Building a campaign of nonviolent action for the purpose of unbuilding a drastic and deadly mistake is, I believe, primarily a process of communication. The Truth has to get out. Human beings can think for themselves when they are supplied with all the information, and they will choose Life when given a decent opportunity. Despair – and destruction – is the unreasonable alternative."

These good words reminded me that hope is the basic requirement for that kind of work. These folks don't go to jail over warheads, civil rights, or national liberation because they're expecting to lose. They can't lose anymore than Mother Teresa can fail. They may not achieve a perfect good, but they will have labored in service of a higher purpose, and that is a lot.

Some of their best efforts may backfire. Lots of best efforts do, but as my friend the spook commented on his early best efforts and mine: "We did something. That's pivotal. Most people just sit on their hands."

Now I hate to presume to advise (like hell I do), but I'm standing behind the podium tonight so I will. My advice is to learn to live with ambiguity. I could urge unambiguous non-violence, but in the lives of some I've known, and someday perhaps in mine, push do come to shove. I know that my unambiguous idealism has done violence to reality. One could spend several lifetimes in an attempt to purify one's idealism of enmity and resentment.

Other advice: learn that irony is a condition of humanity, that imperfection is characteristic of heroes, and that you can never do just one thing. Although the need for change may legitimately preoccupy you, it also helps to cultivate the faith that there could be a reason for even the worst of the problems, a reason so paradoxical you couldn't comprehend it if you tried. ■

The Day Martin Luther King Was Killed

by Anne Herbert

THE DAY MARTIN LUTHER KING, JR. WAS KILLED, John Evans decided to make a lot of money. He had worked for Dr. King for ten years. He got a real job, saved, invested against conventional wisdom, and got rich. In two years and three months, he had enough money. He quit.

He bought land on a state road in a southern state, hired a sculptor, and built his monument to Martin Luther King. When he was building it, he didn't ask for help because he knew it had to be done in a particular way. Other people would discuss and compromise. He told no one about it because he didn't want words and pictures to make it invisible to people before they saw it. Since money can buy more than people usually ask it to, the monument now exists in its own way and is sometimes seen.

The place looks like a roadside park. Most people pull off and use the pump and restrooms and picnic tables and drive on. Some take time to wander around. A few of the wanderers walk over the little hill in the back. Behind the hill, they see fifteen life-size marble people standing in a circle holding hands. They aren't on a base; they're standing in the grass. They're wearing jeans and work shirts, dresses, suits, and overalls. Their mouths are slightly open. Small marble letters sitting on the grass in the middle of the circle say We Shall Overcome.

The circle is not unbroken. There's a space between two of the people. They have their hands open and out at their sides, but no one is holding them. Occasionally someone from the road answers the invitation and comes forward and takes the hands of the statues of John's lost friends. You look across the circle and see Martin Luther King looking at you. The sculptor did King well, especially the eyes.

When the monument was done, John knew that it wasn't in memory of King. It was in memory of that one moment in ten years when John had really believed in the dream, and of all the moments when he had wanted to believe.

John sometimes sits in a tree near the statues, hidden and waiting. He waits for one of the visitors to see it, to see what it was like, what he was like, to believe. It's a very quiet revival, but John hasn't liked noise since he heard the shot. ■

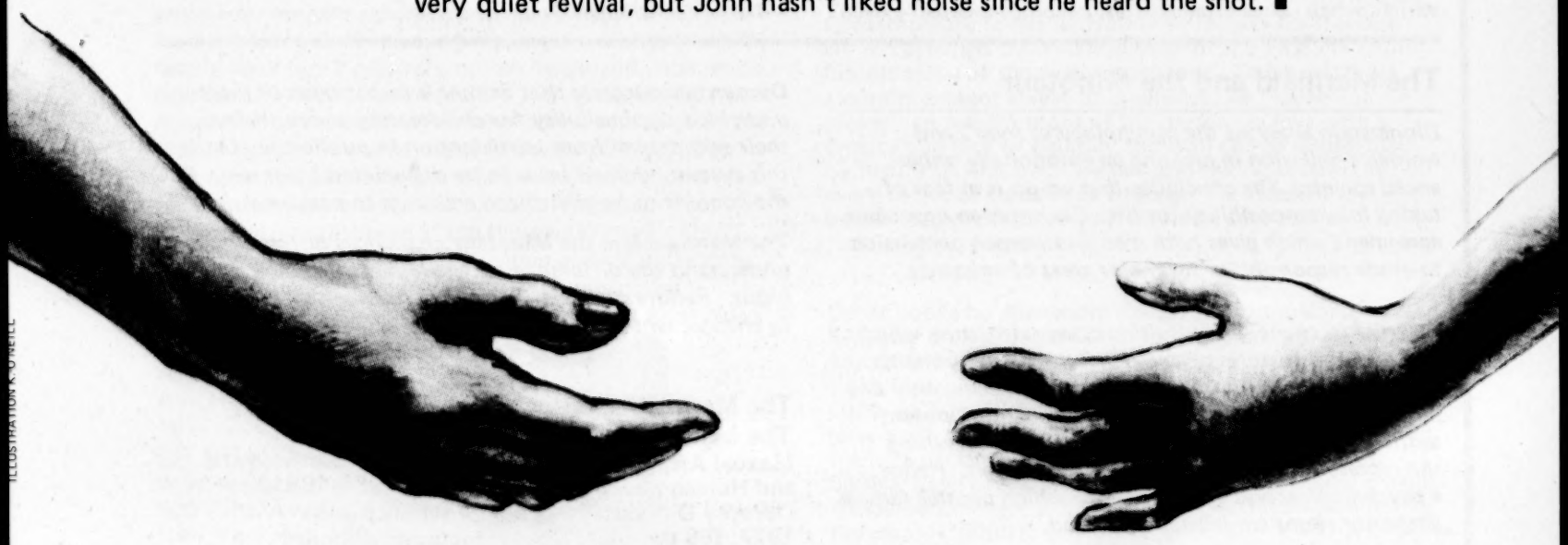


ILLUSTRATION K. O'NEILL

Feminism

FEMINISM IS AS POWERFUL a remedy for our pathological thinking as cybernetics, and is far more accessible.

It's also a long confusing fight. It is hard to do right, and harder not to do at all. There's gritty work on the self and confrontation of lovers required. In spite of all the difficulties, I'm certain of a couple of things: there's no turning this clock back, and there'll be no end of trying.

It's a one-way ticket. No matter how they feel about it personally, most men's and women's lives are different (if not better) because of the women's movement.

These ideas may make you bristle or weep or beam, but whatever your response to this ripening body of thought, you'll change, and with you, the world. —*Stephanie Mills*

Madame de Staël as Corinne after a painting by Elizabeth Vigée-Lebrun. —Mistress to an Age

Sexual Politics

Don't be deterred by the academic tang of the prose: **Sexual Politics,** *like Betty Friedan's* **The Feminine Mystique,** *is one of the essential books of contemporary feminism. And it's good to get acquainted with Millet: in addition to being a writer of considerable talent (which is given freer rein in her more personal history,* **Flying***), she is also a sculptor of consequence.*

In **Sexual Politics,** *she analyzes literature, law and history to reveal the philosophy of patriarchy. In the course of building her arguments, she provides a capsule history of the legal status of women, and of the American suffragist movement (to which the battle for the ERA bears depressing similarities). She also provides an exquisite feminist critique of Freud (whose theories of sexuality are to women as eugenics was to Jews).*

Although some things have changed in the decade since Millet produced this exegesis, it remains an invaluable tool for consciousness-raising, a lens which polarizes cultural values and illuminates the many facets of patriarchy. —*Stephanie Mills*

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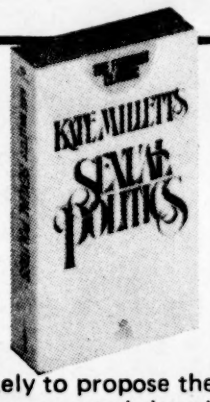
The chief weakness of the movement's concentration on suffrage, the factor which helped it to fade, disappear, and even lose ground when the vote was gained, lay in its failure to challenge patriarchal ideology at a sufficiently deep and radical level to break the conditioning processes of status, temperament and role. A reform movement, and especially one which has fixed its attention on so minimal an end as the ballot, the sort of superficial change which legislative reform represents and which, when it has attained this, becomes incapable even to putting it to use, is hardly likely to propose the sweeping radical changes in society necessary to bring about the completion of a sexual revolution — changes in social attitudes and social structure, in personality and institutions. Marriage was preserved nearly intact despite women's new legal rights within it, and divorce. The "home" was still creditable enough to be refurbished in gleaming colors in the ensuing period of reaction. Although they felt they had escaped economic dependence as far as "the right to work," women were not yet able to pursue the question all the way to equal rights in work; nor did they continue to view work as responsibility or a fundamental social contribution.

●

What goes largely unexamined, often even unacknowledged (yet is institutionalized nonetheless) in our social order, is the birthright priority whereby males rule females. Through this system a most ingenious form of "interior colonization" has been achieved. . . . Our society, like all other historical civilizations, is a patriarchy. The fact is evident at once if one recalls that the military, industry, technology, universities, science, political office, and finance — in short, every avenue of power within the society, including the coercive force of the police, is entirely in male hands.

Sexual Politics
Kate Millett
1969; 543 pp.
$3.95 postpaid from:
Ballantine Books
450 Hahn Road
Westminster, MD 21157
or Whole Earth
Household Store



The Mermaid and the Minotaur

Dinnerstein analyzes the psychology of men's and women's collusion in creating an emotionally unbalanced society. She concludes that we do it in fear of taking full responsibility for life. Sexism is an unspoken agreement which gives both men and women permission to evade responsibility for major areas of existence.

In order to change the resulting power structure, which destroys the nurturing principle, human arrangements must change. If children grow up experiencing only one person of one sex (mother) as the initial, omnipotent authority, they later have to rebel against everything she represents in order to become individuals. Hence a psychological bias against women which negates female authority seems emotionally justified.

Dinnerstein suggests that women's resentment of their undivided responsibility for childrearing accounts for their withdrawal from participation in public life. Under this system, women seem to be dissociated from war. But the consent to be ghettoized amounts to passive assistance.

The Mermaid and the Minotaur *challenges both sexes to understand the difference between parasitism and symbiosis. Failure to do so indicates a real lack of intention to change, whether the goal is social or ecological.*
—*Anne Kent Rush and Stephanie Mills*

The Mermaid and The Minotaur
(Sexual Arrangements and Human Malaise)
Dorothy Dinnerstein
1977; 288 pp.

$3.95 postpaid from:
Harper and Row
Keystone Industrial Park
Scranton, PA 18512
or Whole Earth
Household Store

Mistress to an Age: A Life of Madame de Staël

This is the biography of a woman who was, in her heyday, described as one of the three great powers of Europe. Curiously enough, in the course of a reasonably good liberal education, I never heard of her. A few years later, when I began to keep a salon, de Staël's name came up, but only in that connection. Herold's superb portrait details her life, which spanned and shaped the history of Royalist, Revolutionary, Imperial, and Republican France. The book provides a core sample of an intellectual era from which we are only now emerging. Figures like Goethe, Schiller, Gibbon, Talleyrand, and Napoleon peopled de Staël's world. Small wonder she wielded such political and intellectual influence.

In addition to describing her salon, **Mistress to an Age** *discusses de Staël's considerable literary output, her travels, her friendship with Madame Recamier, her children, and her several love affairs. Extensive quotation from her correspondence evokes a vital sense of this brilliant, prodigious woman. Then, as now, to know her was to love her. A century and a half after her death, Herold rekindles that pleasure.* —*Stephanie Mills*

Mistress to an Age
(A Life of Madame de Staël)
J. Christopher Herold
1958; 500 pp.
$6.95 postpaid from:
Harmony Books
One Park Avenue
New York, NY 10016

●

What she craved above all was love or, nearly indistinguishable from it, friendship; the sexual act might be indulged in or renounced in the interest of either. But she was incapable of either love or friendship without intellectual and nervous exaltation, and for such exaltation Monsieur de Staël was not a fit object. He meant to be loved; he courted his own wife, pleaded for her love — but always on the inadequate ground that he was her husband.

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For Germaine, conversation was, next to love, the principal *raison d'être*. In her book on Germany she devoted an entire chapter to the subject of conversation, and it belongs to the best of her writings. In France, she explains:

"Words are not merely, as they are in all other countries, a means to communicate ideas, feelings, and needs, but an instrument one likes to play and which revives the spirit, just as does music in some nations, and strong liquors in others. [It is] a certain way in which people act upon one another, a quick give-and-take of pleasure, a way of speaking as soon as one thinks, of rejoicing in oneself in the immediate present, of being applauded without making an effort, of displaying one's intelligence by every nuance of intonation, gesture, and look — in short, the ability to produce at will a kind of electricity which, emitting a shower of sparks, relieves the excess of liveliness in some and rouses others from their painful apathy."

Selected Writings of Alexandra Kollontai

Alexandra Kollontai was a Russian political activist in the early 1900s, member of Lenin's first revolutionary council, mastermind of the Soviet Armistice with Finland, and the first woman to be appointed ambassador to a foreign country. Her writings document the early stages of the Russian revolution, and her part in the struggle for women's rights. In English, several of her books are available: **Red Love, Great Love, Love of the Worker Bees,** *the* **Selected Writings,** *and* **The Autobiography of a Sexually Emancipated Communist Woman.** *(I recommend her autobiography especially, but* **Selected Writings** *is easiest to find in the average bookstore.) If you read Russian, you can delve into her correspondence with Lenin and her earlier political papers and books which detail the ideological battles and earliest formulations of Marxism. What is particularly interesting to me in her work is the saga of her struggle to remain a political activist within a society that wanted her absolute service, but absolutely rejected her ideas.*

She established maternity care, organized worker interest groups for women laborers, and held firmly to her guiding belief that until women's rights were instated and the family structure's arbitrary hierarchy purged, true revolution would never be achieved. If you agree with her that repression of movements for new sexual morality is "the first symptom of the betrayal of the revolution," you may have had similar experiences within the recent New Left and can learn from her history. Her prophetic, optimistic description of "the Woman of the Future," to whom work would always remain a more passionate involvement than romantic love, is also inspiring.

—*Anne Kent Rush*

Selected Writings of Alexandra Kollontai
Alix Holt, Translator
1977; 336 pp.
$5.95 postpaid from:
W.W. Norton and Co.
500 Fifth Avenue
New York, NY 10036

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Bourgeois morality, with its introverted individualistic family based entirely on private property, has carefully cultivated the idea that one partner should completely "possess" the other. It has been very successful. The idea of "possession" is more pervasive now than under the patrimonial system of marriage relationships. During the long historical period that developed under the aegis of the "tribe," the idea of a man possessing his wife (there has never been any thought of a wife having undisputed possession of her husband) did not go further than a purely physical possession. The wife was obliged to be faithful physically — her soul was her own. Even the knights recognised the right of their wives to have *chichesbi* (platonic friends and admirers) and to receive the "devotion" of other knights and minnesingers. It is the bourgeoisie who have carefully tended and fostered the ideal of absolute possession of the "contracted partner's" emotional as well as physical "I," thus extending the concept of property rights to include the right to the other person's whole spiritual and emotional world. This is the ideal that we have accepted as our heritage and have been prepared to see as an unchangeable moral absolute! The idea of "property" goes far beyond the boundaries of "lawful marriage." It makes itself felt as an inevitable ingredient of the most "free" union of love. Contemporary lovers with all their respect for freedom are not satisfied by the knowledge of the physical faithfulness alone of the person they love. To be rid of the eternally present threat of loneliness, we "launch an attack" on the emotions of the person we love with a cruelty and lack of delicacy that will not be understood by future generations. We demand the right to know every secret of this person's being. The modern lover would forgive physical unfaithfulness sooner than "spiritual" unfaithfulness.

Other books by Alexandra Kollontai: **Autobiography of a Sexually Emancipated Communist Woman,** 1972, £1.60 (about $4) postpaid from Ohrbach and Chambers, 74 Long Lane, London EC1A 9ET, England; **Great Love,** 1929, $13.25 postpaid from Arno Press, 3 Park Avenue, New York, NY 10016; **Red Love,** 1927, $19.75 postpaid from Hyperion Press, 45 Riverside Avenue, Westport, CT 06880; **Love of the Worker Bees,** 1978, $5 postpaid from Academy Chicago, Ltd., 360 North Michigan Avenue, Chicago, IL 60601.

When God Was a Woman

On examining the premises of most modern religions, many a woman notices that God doesn't seem to be on her side: female creatures are described in downright unfriendly terms as a source of rebellion, evil, and impurity. The sexual politics of these religions have led from the Biblical burnings of the golden calf (an idol of goddess worship), to the burning of nine million women as witches in the Middle Ages, to the fights over ordaining women as Episcopal priests in New York in the 1960s, to the struggles of Iranian women for human rights in the 1980s.

Anyone thirsting for concepts of women's spirituality and unsatisfied by most conventional writing on the subject will find Merlin Stone's book a long drink of water. Stone tells us, comfortingly, that for much of human history, God was a woman: anti-female religion is a rather recent invention. Her stories of goddess religions are psychologically so important that they should be read as bedtime stories by people of all ages. Her research is so thorough that even the most skeptical pedant should applaud. —*Anne Kent Rush*

When God Was a Woman
(The Story of the Most Ancient of Religions, the Religion of the Goddess, and the Role this Ancient Worship Played in Judeo-Christian Attitudes Toward Women)
Merlin Stone
1976; 265 pp.
$3.95 postpaid from:
Harcourt Brace and Jovanovich
757 Third Avenue
New York, NY 10017
or Whole Earth Household Store

Small bronze statue of the Goddess astride two lions, an image common among Greeks and Romans.

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Goddess — As People Today Think of God

The archaeological artifacts suggest that in all the Neolithic and early Chalcolithic societies the Divine Ancestress, generally referred to by most writers as the Mother Goddess, was revered as the supreme deity. Now She provided not only human life but a controllable food supply as well. C. Dawson, writing in 1928, surmised that "The earliest agriculture must have grown up around the shrines of the Mother Goddess, which thus became social and economic centres, as well as holy places and were the germs of future cities."

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It was not long before the various pieces of evidence fell into place and the connections began to take form. And then I understood. Ashtoreth, the despised "pagan" deity of the Old Testament was (despite the efforts of biblical scribes to disguise her identity by repeatedly using the masculine gender) actually Astarte — the Great Goddess, as She was known in Canaan, the Near Eastern Queen of Heaven. Those heathen idol worshipers of the Bible had been praying to a woman god — elsewhere known as Innin, Inanna, Nana, Nut, Anat, Anahita, Istar, Isis, Au Set, Ishara, Asherah, Ashtart, Attoret, Attar and Hathor — the man-named Divine Ancestress. Yet each name denoted, in the various languages and dialects of those who revered Her, The Great Goddess. Was it merely coincidence that during all those years of Sunday School I never learned that Ashtoreth was female?

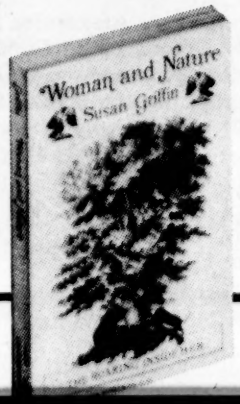
Woman and Nature

Susan Griffin is a poet, playwright, and essayist. In **Woman and Nature**, *she explores questions of identity, archetype, and culture which are too profound to be treated in conventional prose. Her book deals with the congruence of woman and nature, and with the rift between them and patriarchy. To do this, Griffin employs two voices: passive and active, objective and subjective. In italics, we read an interior monologue, the intuitive voice decrying the objectification of women, and life itself.*

Griffin's is an encyclopedic intelligence, producing an immense concentration of knowledge in deliberate, liberated cadences. She talks about forestry, animal husbandry, and childbirth; critiques social Darwinism, speculates that Newton may have been an alchemist, and distills Madame Curie's life: her last words were "I want to be left in peace."

Woman and Nature *is epochal literature, fierce, sensitive, and powerful enough to change consciousness: Magic Words.* —*Stephanie Mills*

Woman and Nature
(The Roaring Inside Her)
Susan Griffin
1978; 263 pp.
$3.95 postpaid from:
Harper and Row
Keystone Industrial Park
Scranton, PA 18512
or Whole Earth Household Store



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He says that woman speaks with nature. That she hears voices from under the earth. That wind blows in her ears and trees whisper to her. That the dead sing through her mouth and the cries of infants are clear to her. But for him this dialogue is over. He says he is not part of this world, that he was set on this world as a stranger. He sets himself apart from woman and nature.

And so it is Goldilocks who goes to the home of the three bears, Little Red Riding Hood who converses with the wolf, Dorothy who befriends a lion, Snow White who talks to the birds, Cinderella with mice as her allies, the Mermaid who is half fish, Thumbelina courted by a mole. *(And when we hear in the Navaho chant of the mountain that a grown man sits and smokes with bears and follows directions given to him by squirrels, we are surprised. We had thought only little girls spoke with animals.)*

We are the bird's eggs. Bird's eggs, flowers, butterflies, rabbits, cows, sheep; we are caterpillars; we are leaves of ivy and sprigs of wallflower. We are women. We rise from the wave. We are gazelle and doe, elephant and whale, lilies and roses and peach, we are air, we are flame, we are oyster and pearl, we are girls. We are woman and nature. And he says he cannot hear us speak.

But we hear.

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This earth is my sister; I love her daily grace, her silent daring, and how loved I am *how we admire this strength in each other, all that we have lost, all that we have suffered, all that we know: we are stunned by this beauty*, and I do not forget: what she is to me, what I am to her.

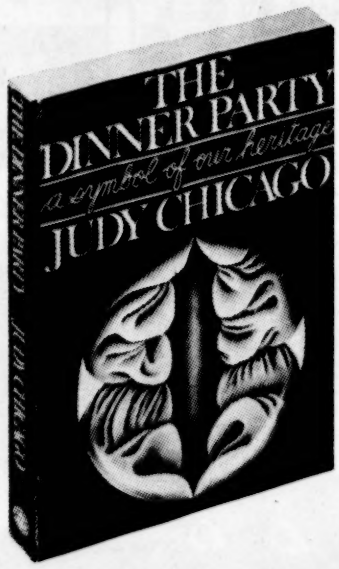
The Dinner Party

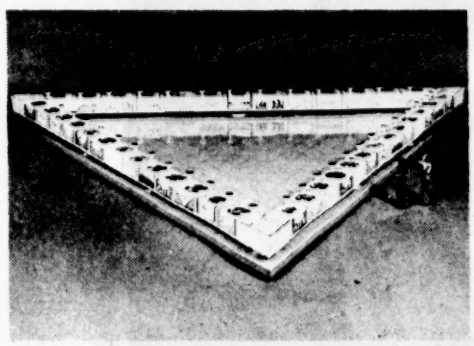
In this inspiring book, Judy Chicago recounts the creation of her monumental narrative sculpture, The Dinner Party. The work, a triangular table 46½ feet on a side, is set with 39 plates on elaborately needleworked runners. Each setting evokes a woman who made a significant contribution to history. The table rests on a tile floor embellished with the names of 999 other women of history. Thus The Dinner Party is thoroughly symbolic feminist art. Chicago purposefully chose the media of needlework and china painting ("decorative arts" which have provided a creative outlet for thousands of woman who might, in an egalitarian society, have been "fine" artists) and transcended them.

In excerpts from the journals she kept while working on The Dinner Party, Chicago writes cleanly and candidly of her ambitions. She acknowledges her egotism freely, but never indulges the conceit that her art is wholly her own creation. Rather she talks of the difficulty and satisfaction of working with the many other artisans and scholars whose help was required to do the research, build the equipment, solve the technical problems, and stitch.

In order to achieve this aesthetic illumination of the history of half the human race, Chicago and her cohorts undertook to research the lives of thousands of women. Brief biographies of all the women honored in **The Dinner Party** *constitute a major part of the book and make it a valuable introduction to women's history as well as a chronicle of an original — and revolutionary — masterpiece.* *—Stephanie Mills*

The Dinner Party
(A symbol of our heritage)
Judy Chicago
1979; 256 pp.
$12.95 postpaid from:
Doubleday and Company
501 Franklin Avenue
Garden City, NY 11530
or Whole Earth
Household Store





Dinner Party **model designed and built by Ken Gilliam.**

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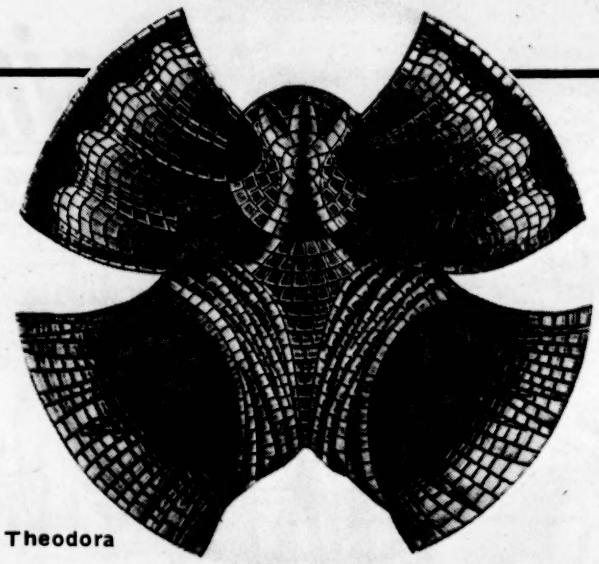
But what's bothering me is the plates — the damn plates. We've been working on them a year and a half, and we've only got one. I had really thought we'd solved the technical problems for at least the first eight — which would complete the second wing of the table. I made six; one cracked — the mosaic plate for Theodora, which needs more tests, as the test plates broke in the china-painting kiln, though the real plate is done and ready to be fired. That left five, all in various stages of painting when I left town. Now there are four, one done and three close to being done. It's getting harder to invest the time and the caring, not knowing what will happen to the plates, and, worse, I can't take them as far with painting as I could if they were uncarved; the risk of breakage is always there.



Theodora

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Theodora, the famed Byzantine empress, began her life as an actress — a profession that was despised in Byzantine society. After living a rather dissolute early life, she became religious and established herself in Constantinople, living simply and supporting herself by spinning. Shortly thereafter she met Justinian, the Emperor's nephew, and they were married as soon as he was able to have the laws changed to permit union between himself and a woman of humble origins. Theodora was crowned with Justinian in 527 and became the Empress of Byzantium. In Ravenna, a cathedral built by them is filled with glittering mosaics that depict the joint rule of the royal couple. Theodora's plate incorporates both the color and the technique of these mosaic walls.

Les Guérillères

Reading Monique Wittig's visionary writing is heady as drinking great champagne or eating great chocolate. Enough of it will lift you to an altered state. In **Les Guérillères**, *an Amazon odyssey, bizarre actions and images recombine and give birth to a new sanity of logic and desire. Some call it fiction, but it feels like prophecy to me.*

Les Guérillères *is published in the original French by Les Editions de Minuit, but for those of us who read English more easily, David Le Vay's fine translation is available in an Avon paperback. Wittig's books have received wide critical acclaim in France, earning her the Prix de Medicis. She has recently moved to the U.S. I hope that our publishing world will be even more receptive to her work. I want access to many more of her extraordinary dreams.* *—Anne Kent Rush*

Les Guérillères
Monique Wittig
1969, 1971; 144 pp.
$1.90 postpaid from:
Avon Books
Mail Order Department
250 West 55th Street
New York, NY 10019
or Whole Earth
Household Store

●

There was a time when you were not a slave, remember that. You walked alone, full of laughter, you bathed bare-bellied. You say you have lost all recollection of it, remember. The wild roses flower in the woods. Your hand is torn on the bushes gathering the mulberries and strawberries you refresh yourself with. You run to catch the young hares that you flay with stones from the rocks to cut them up and eat all hot and bleeding. You know how to avoid meeting a bear on the track. You know the winter fear when you hear the wolves gathering. But you can remain seated for hours in the tree-tops to await morning. You say there are no words to describe this time, you say it does not exist. But remember. Make an effort to remember. Or, failing that, invent.

feminist joke

Fifteen years ago, Trina Robbins was the hippy housewife of "the best loved unpublished poet on Sunset Strip. I used to sit at his feet and listen to his poetry and I never understood any of it but I figured it must be because I was stupid." Her lifelong interest in drawing was confined mostly to doodling on napkins "because I figured what he did came first. It wasn't really anything he demanded of me but that seemed to be what the culture was saying and I bought it."

Fourteen years ago, Trina stopped buying it. She left the poet and Los Angeles, went to live in the Lower East Side of New York and started drawing cartoons for the **East Village Other**. *This led to a long career of food stamps, unemployment and great feminist underground comics.*

She got tired of the low money part of doing underground comics and now draws for magazines including **National Lampoon, Heavy Metal, High Times** *and* **Playboy**. *I asked her about the politics of drawing for* **Playboy** *and she said, "Compared to the right-to-lifers,* **Playboy** *is feminist. They're not* **Hustler**. *What they've got is pictures of nude stewardesses and on my list of offensive things, nude stewardesses rank pretty low."*

the Other Joke

© TRINA ROBBINS '80

She said when she first sent drawings to **Playboy**, *the cartoon editor, who is a woman, told her that she was delighted to see good cartoons from a woman, but Trina's writing was "too aggressively female" for* **Playboy**'s *audience. Trina realized that it wasn't possible for her to be less aggresively female, so now when she does work for* **Playboy** *(she's been published 3 times) she uses a writer.*

The feminist joke, left, was originally written for Paul Krassner when he and Larry Flynt were going to revive **The Realist** *when Paul was briefly editor of* **Hustler**. *Then Larry Flynt got shot, Paul got fired and* **The Realist** *revival retreated into the vague future. She then showed the joke to the editor of* **New Dawn**, *a women's magazine, who said she loved it but she couldn't print it because the publisher would hate it.*

Next she took it to **Mother Jones** *where the art director laughed out loud and said she was sure the editors wouldn't like it. The Other Joke (quick, read it before you finish this sentence) was done before the news about toxic shock syndrome, which Trina thinks makes it a bit dated and I think makes it a bit blacker.* —Anne Herbert

BOX 428 SAUSALITO CA 94966

Or How I Learned to Stop Worrying and Love the Decline and Fall

"No power on earth is stronger than the United States of America today, and none will be stronger than the United States in the future."
—Richard M. Nixon

"Happy is it, to practice the yoga of renouncing one's own country."
—Milarepa

The Zen Socialist ideas in this article come from Scoop's original rock musical, "The Last News Show, or The Empire Strikes Out." By the time you read this, the show will have been produced in San Francisco at the Intersection Theatre, and may soon be a major motion picture.

CoEvolution *faithfuls will recall Scoop's masterful editing (with Larry Lee) of issue number 16, the broadcast special. Bay Area residents still lament the passing of his brilliant and original audio collaging of news and comment on radio station KSAN.*

A multifaceted fellow and a helluva nice guy, Scoop was last glimpsed at a North Beach cafe in the company of his daughter, a diminutive brunette hellion named Rose. He may have been en route to a rewrite, a Nobody for President Rally, or a meeting with a backer, but wherever he was bound, he was smiling gnomishly, as usual.

—Stephanie Mills

out

by Scoop Nisker

ILLUSTRATED BY
LARRY GONICK

It's obvious. The American Empire is finished. Our big league franchise has run out. It's time to become a farm team.

Just look at the facts, folks. We were licked by a bunch of peasants in Vietnam, our puppet regimes are falling all over the world, our productivity is declining, our goods are shoddy, the dollar is losing its value, we are poisoning ourselves with our own technology, our defense computers keep breaking down, our crack army team was a fiasco in Iran, we let the Russians run all over Afghanistan. And the list goes on.

So let's just cop to it and default: withdraw as contenders for the title of Heavyweight Champion of the World. In fact, I modestly submit a proposal, to wit; that the United States of America officially resign as a superpower, and at the same time apply to the United Nations for formal recognition as a third world nation. It's bound to happen anyway, so let's go for it.

It's really nothing to be ashamed of. Empires rise and fall like the abdomen of God. It's just the universe breathing. And the only possible cause for embarrassment might be that, historically speaking, we held the title for so short a time. In any case if we take an honorable and enlightened approach, and simply resign without a struggle, I think the world would applaud our action, and there would be less suffering all around.

A reporter once asked Mahatma Gandhi what he thought of Western Civilization. The Mahatma replied, "I think it would be a good idea."

"If you can't change your circumstances, then change your attitude."

—Some old Zen monk

As Americans I think we really ought to look forward to becoming a third world nation. Imagine how wonderful it could be. For example, we won't have to regard the coming economic collapse as a "depression," but simply a normal condition of being underdeveloped. Deliberately becoming a third world nation would allow us to relax behind the decline and fall, ease our way into the inevitable slow down, and get ourselves ready for a more pastoral way of life. For one thing, we could bow out of the nuclear arms race. Furthermore, our plunging GNP will allow us to shut down nuclear power plants. And once we no longer have to worry about the White Man's Burden or making the world safe for democracy and profit, we can just concentrate on creating the best damn little third world nation on the planet, right here in America. And we can do it, I know we can.

As we begin to adjust to our third world nation status, the New Age will blossom automatically. Everybody will grow sprouts on their kitchen windowsill. There will be chickens in every garage, and woodburning stoves in the living room. Home remedies, midwives, and windmills will flourish. Gardens will spring out of suburban lawns, and clothes will hang from the windows of condominiums. No longer will the city gentry have to go to the country, because the country will come to them. We will all become a more peasant-like people. The New Age is just planned underdevelopment!

As we make the transition from post-industrial to pre-industrial, we should ask other third world nations to help us out by starting up a Peace Corps in reverse. Countries like India and Egypt could send volunteers to teach us how to live a village style life; how to wash clothes on rocks, how to plow with oxen, how to cook a tasty meal of rice and beans. They could even start up one of their famous literacy campaigns and go out into the countryside to teach post-literate Americans how to read. And of course, political experts from other third world countries can give our politicians lessons on how to act morally indignant at international conferences. We will constantly have to demand our fair share of the world's resources.

Now, as we head for the big leap backwards, you might be wondering about the millions of unemployed and underemployed workers, the chaos that will result from turning down the techno-electro-hyper machine that is America. But Rome won't fall in a day. And if we plan our fall carefully and deliberately, we might escape with only a skinned knee. So how can we possibly refit our economy to make a smooth transition from Superpower to third world nation? No problemo, campesinos! Here are a few ideas based on the philosophy of Zen Socialism.

First some explanation of the great non-doctrine of Zen Socialism. It is basically the political equivalent of the concept of enlightenment. A pie-in-the-sky ideal for society. Zen Socialism also just happens to be the next inevitable step in the dialectic of history. You know; thesis, antithesis, thesis. So this time we stand Marx on his head

and let him get into his body for awhile. Then we begin to work on an "enlightened" peoples' revolution. For instance, under Zen Socialism, those who govern would first have to undergo training in humility, compassion, and the Diamond Sutra. Then the political candidates with the least ego would win the elections. "Nobody" would be president. And as we all know, "nobody" is perfect.

The primary task of Zen Socialism will be to help people learn how to gracefully give up their Superpower lifestyles and the doctrine of materialism. Hence, "Zen" and "socialism" compliment one another as we all learn to, "give it up together." The other goal of Zen Socialism will be to return our civilization to harmony with the rest of nature. So becoming a third world nation can be seen as a great leap forward. Less is more. Nothing is everything.

This is not just a half-baked philosophy or a hare-brained new age joke. Zen Socialism does have some real planks in its platform and some specific ideas for transforming the economy of the United States. For example, during our transition from Superpower to third world nation, the Zen Socialist government will put the blue collar workers back to work taking the whole thing down. It will be a massive public works program called the Disassembling of America. People will work on disassembly lines, taking apart the cars, melting and separating the steel back into ores and shoveling it all back into the ground. Dust unto dust. Construction workers will break up the concrete freeways and take down the most ludicrous skyscrapers, floor by floor. The Army Corps of Engineers will carefully dig up the dams and set the rivers free again. What a glorious national task it will be! We will work together under the slogans; "Let's Make the Continent Safe for Nature!" "Now Is the Time for All Good People to Come to the Aid of Their CountrySIDE!" "Long Live the Biosphere!"

Meanwhile, for the unemployed white-collar paper pushers, the Government of Zen Socialism will institute a different kind of public works program. This new public works program will pay people by the hour, just to work on themselves! It will be the New Age New Deal. This program will be run by the Department of Meditation and Therapy, which will hand out individualized mantras, gestalt exercises, and other self-realization techniques. This will keep the unemployed middle classes busy while simultaneously teaching them how to shake off their achievement-oriented, crazy-running-around tensions. Of course the department of Meditation and Therapy will have to ensure against fraud, so a team of Very High Beings will be assembled as investigators to test whether or not you have really been doing your work on yourself. The investigators will be called the Karma Squad, and will have their headquarters at the Transamerica Pyramid which will be hollowed out to ensure purity and good vibes.

And finally, during our transition phase from superpower to third world nation, there is a Zen Socialist plan to ensure some foreign revenues and keep our currency afloat. Consider this. Is it not true that we are the most entertaining nation on this little blue marble of a globe? So, as we resign as a superpower, we could simultaneously pull off the biggest tourist promotion in history. Why not? It's a sure thing. The promo copy reads something like this:

"Citizens of the World! The Zen Socialist Government of the United States of America proudly announces the opening of the largest, most spectacular entertainment complex on Earth: 'Formerly Great America!!' Yes, come one, come all, to the decline and fall, where the downhill rides are the fastest ever! See the once great empire as it lives out its final fading glory! Visit the World Trade Center, monoliths of a dying hegemony, testaments to the power of a former decade! Take a guided tour of the once-bustling Chrysler plant! Eat at the Chicago Board of Trade restaurant where yesterday's commodities' ticker-tapes are today's menus! You can even visit the formerly great American shoe store! You can play in glittering Las Vegas or Los Angeles during the final throes of their history-making decadence! It's the Show of Shows, the Last Supper, the end of the orgy! So get your tickets now while there is still time! We're staging a powerful moment in history and you're invited! Our beautiful Statue of Liberty is holding out her beacon to you and saying, 'Give us your rich, your curious, your neo-imperialists yearning to buy cheap.' It's all waiting for you now at 'Formerly Great America,' the greatest entertainment complex in the world!"

These are just some of the Zen Socialist plans for transforming the United States from a Superpower to a third world nation. If we can only accept our manifest destiny and all work together, we will not only survive, but also maintain. It's just a matter of attitude, of seeing the glass as half full. So remember, stay high but keep your priorities straight. And, if you don't like the news, go out and make some of your own!■

L.L. Bean and Maine Yankee

I'd been pretty much trading with L.L. Bean for years except for the purchase of a North Face sleeping bag some years ago (L.L. Bean now carries some North Face products!) but Bean's recent contribution ($5,000) to the Save Maine Yankee Committee has made me reconsider my buying habits. We had a chance in Maine to close down our only atomic power plant — we lost — however, I feel that purchasing from L.L. Bean contributes to such behavior at the ballot box and *that* feeling far outweighs my desire to purchase from a Maine enterprise.

Checking out all catalogs at my disposal, I narrowed my choice to the N.F. Serow parka and the Eddie Bauer KaraKoram. Bruce LeBel's blurb in **NWEC** about the inner workings of North Face provided some valuable information. I called Eddie Bauer and was told that the company was now owned by General Mills. Enough said — hardly any profit sharing, cooperative management there — the woman I spoke with said that the employees were anti-nuke — but General Mills?

My '70s paranoia has been replaced with the desire to make a small impact through trading with and supporting businesses emphasizing quality as well as egalitarian management practices. I spend too much time writing interrogatory letters and not enough time being a "consumer" I suppose. Perhaps the *next* **NWEC** or a few **CQ**s down the road someone could review and comment upon ownership/management/philosophical aspects of businesses **CQ** readership trades with — perhaps that could become a regularly included element in access reviews.

Jane Heart

L.L.Bean INC
FREEPORT, MAINE 04033
Outdoor Sporting Specialties

TEL. (207) 865-4761

September 26, 1980

Ms. Jane Heart Dowley
Machias, ME 04654

Dear Ms. Dowley:

Thank you for writing and expressing your views.

Due to the particular economic and environmental circumstances present in Maine, we felt it would be a serious mistake to close the Maine Yankee Atomic Power Company. Consequently, we donated funds to the Save Maine Yankee Committee.

Maine Yankee provides a third of our state's power in an efficient and economic manner. Being the 50th "poorest" state in the nation, our people cannot easily afford the costlier oil-fired energy alternative. The only other alternatives in the near future are hydro development and coal-fired plants. Both of these are substantially more destructive to our environment than the Maine Yankee plant has proven to be.

Maine Yankee has an excellent operating and safety record. More is being done to enhance its performance. It is our opinion that the known damages to Maine's environment that would be caused by a shutdown of this plant far outweigh the best assessments of safety risks associated with it.

L. L. Bean does not favor further development of nuclear power in the State of Maine. We also do not have a position on the present and future status of nuclear power in the United States. It is incorrect to construe from our position on the Maine Nuclear Referendum that we are pro-nuclear.

We do feel our position is consistent with our past support of Maine's natural environment. Our role in opposing the Dickey-Lincoln Dam is well known. For years we have helped support the activities of the Natural Resources Council of Maine, Maine Audubon Society, The Nature Conservancy, The Appalachian Mountain Club, The American Hiking Society, Ducks Unlimited, and other conservation groups not only with funds, but with the personal involvement of myself and many of our staff. We have also sponsored many research projects on such subjects as Maine's Black Bears, Atlantic Salmon, and Puffins. We will continue to work for the cleanest and safest environment for Maine, including energy conservation and alternate energy sources.

The easiest thing we could have done on the Maine Yankee issue was not to do anything. Its continuation or shutdown would have minimal impact on our business. As a responsible corporate citizen of Maine, however, we felt we had to take a position as best we saw it for the good of our state.

I am deeply sorry our position was upsetting to you. I do hope you understand our obligation to take a public position on a vital issue regardless of whether it's the popular thing to do. I also hope we can continue to be of service to you.

Yours truly,

L. L. BEAN, INC.

LAG:HS

Leon A. Gorman
President

Everybody's Business

I've wished for years for a scorecard to consumer products, so one could find out that Styrofoam, for instance, is made by Dow Chemical; or Tinkertoys are owned by CBS; or Muriel Cigars are sold by Gulf and Western. **Everybody's Business** *has the scorecard, plus almanac-style descriptions of the personalities and areas of influence of the 300-odd most interesting corporations in this country. (Is it a mark of status at the stock exchange to be included?) Not only are the blurbs fun to read, but they have a barbed incisiveness rarely seen in writing on corporations anywhere. That plus the great attention to detail make this a better nuts-and-bolts political tool than a mere exposé of government would be.*
—Art Kleiner

Everybody's Business
(The Irreverent Guide to Corporate America)
Milton Moskowitz, Michael Katz and Robert Levering, Editors
1980; 916 pp.

$9.95 postpaid from:
Harper and Row
Keystone Industrial Park
Scranton, PA 18512
or Whole Earth Household Store

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Kerr-McGee is a splendid example of how successful an oil company can become when their chairman is one of the most powerful members of the United States Senate. The company is a trail blazer. In 1947 they drilled the world's first offshore oil well. In 1952 they were the first oil company to expand into the uranium business. And in 1979 they became the first nuclear firm to go on trial for their safety record, in the famous Karen Silkwood case.

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From the Consumer Brand Index: Who Makes What

Lee Goodyear Tire & Rubber
Lee Wards Creative Crafts General Mills
Lees Burlington
Leesburg Daily Commercial New York Times
Leisurama City Investing
Lejon Heublein
Lemon Hart Standard Brands
Lemon Jelvyn Richardson-Merrell
Leonard White Consolidated
Leonard Macy Interco
Leroux Seagram
Les Charmes Seagram
Leslie Cargill
Lestoil Noxell
Levi's Levi Strauss
Levi's for Feet Brown Group
Lewis Gulf + Western
Lexington Dispatch New York Times

Wonder Drugs, Super Germs

by Orville Schell

Antibiotics have been an incredible boon to livestock producers – as they have been in human health – when used judiciously. But the routine feeding of antibiotics to livestock in modern rearing systems may be creating a potential health hazard: antibiotic-resistant disease-causing bacteria which can infect humans as well as animals. This is so far difficult to prove and hotly contested. The alternative to large confinement rearing of livestock that makes antibiotics necessary may be an opportunity to smaller producers but educating the consumer to buy more expensive antibiotic-free meat will be difficult, since many have cut their consumption already because of current prices.

Orville Schell's books include ***In the People's Republic*** *and* ***Watch Out for the Foreign Guest: China Confronts the West.*** *He is also a partner in a small pig raising operation in California. This occupation led him to a year's investigation of drugs and chemicals in livestock production as an Alicia Patterson Foundation Fellow. This article appeared in the November, 1980 APF* ***Reporter.***

–Richard Nilsen

Ad from **Feedstuffs, the Weekly Newspaper for Agribusiness**

THE STORAGE TANKS OF Rachelle Laboratories, Inc. stand like grain silos along the Terminal Island Freeway in Long Beach, California. They are filled with hundreds of tons of Chlorachel, a chlortetracycline animal feed additive which Rachelle markets for livestock and poultry.

From the freeway, the Rachelle complex looks like an oil refinery. Iron catwalks, steel piping, stacks emitting steam surround the large fermenters, crystallizers, blenders, and baggers. Warehouses are filled with multiwalled fifty-pound plastic sacks and hundred-pound fiber drums of chlortetracycline stacked up in piles like displays at a supermarket.

For people accustomed to thinking of antibiotics in terms of a few cc's withdrawn for intramuscular injections from small rubber-stoppered bottles no larger than a human thumb, the sheer bulk of the antibiotics manufactured by Rachelle (the nation's second largest manufacturer of chlortetracycline after American Cyanamid) is overwhelming. As the Rachelle catalog for Animal Health and Feed Additive Products reminds prospective buyers, the minimum order for most varieties is one ton.

"This is the greatest country in the world in terms of agricultural production," says Len Zoller, Rachelle vice president at the Long Beach plant, with pride. "But the way we grow livestock and poultry today, we couldn't continue to lead the world without broad-spectrum antibiotics like chlortetracycline."

In 1979, U.S. pharmaceutical manufacturers marketed $243.7 million worth of antibiotics for animal use. Since 1960, the annual consumption rate has risen almost tenfold. In 1978, the FDA estimated that over six million pounds of antibiotics ended up in animals, much of it in meat-producing animals for human consumption.

Since 1949, when antimicrobial feed additives were first discovered to promote weight gain as well as control disease, more than one billion head of cattle have been raised with them. In the U.S., almost all chickens and turkeys, 85 percent of all hogs, 75 percent of all cattle and 50 percent of all sheep are fed low daily doses of antibiotics for prolonged periods of time.

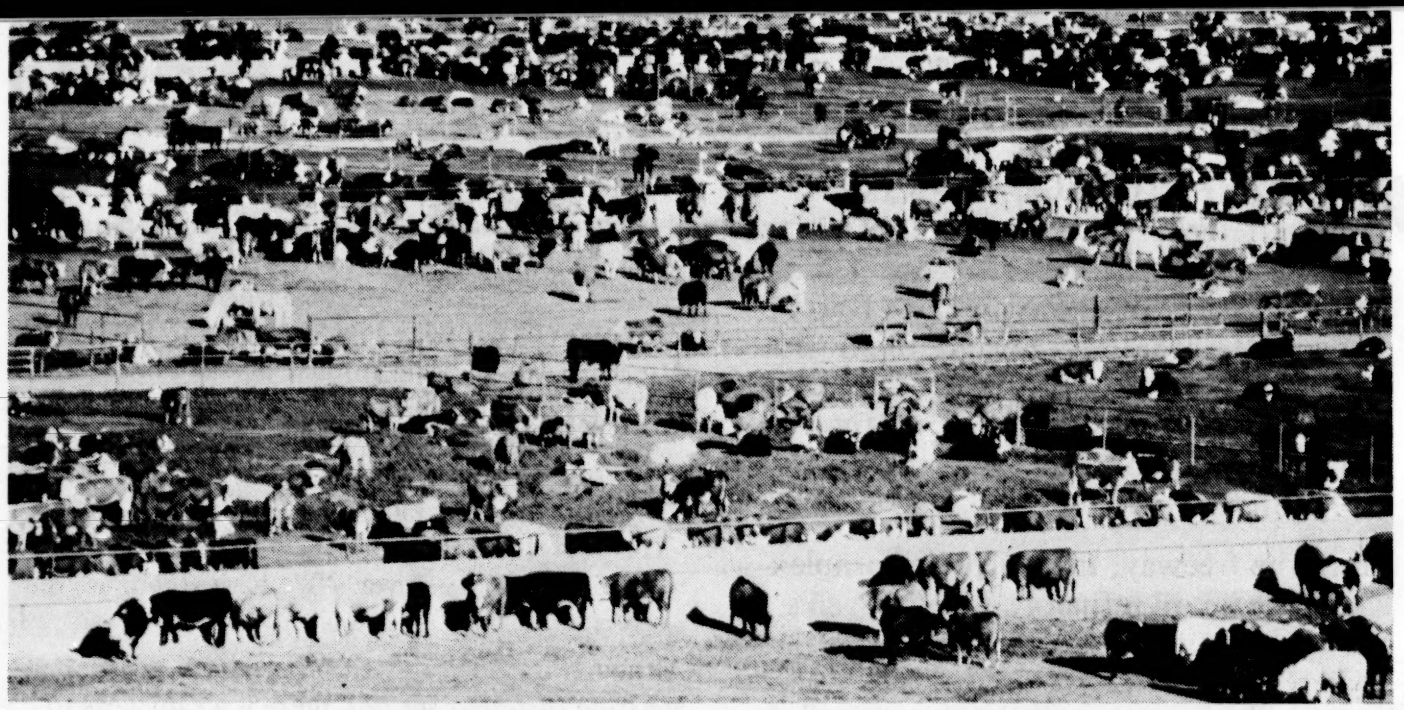
"Greet Them With up to 2g/day. It's Your Strongest Medicine Against Shipping Fever," advises Pfizer, Inc., in an advertisement for their oxytetracycline, featuring a romantic scene of range cattle silhouetted against a blood-red sunrise. "Tylan Saves an Average of 20 Pounds of Feed Per Hog. No Other Antibiotic Offers This 'Real World' Proof of Feed Savings" announces a brochure for Tylan, from the Eli Lilly & Co. (Elanco), showing a satisfied hog farmer leaning against a pen of sleek market hogs. "Stafac (Virginiamycin) Gives Midwest Pork Producers More. Keeps Growing Pigs Healthy and Growing" proclaims Smith Kline Animal Health Products in a stylish brochure filled with mug shots and testimonials from hog farmers around the country. ("Stafac pigs look much healthier." – Missouri. "Within a day I could tell the difference." – Ohio. "The pigs grow real good. They seem to want to eat a lot better." – Iowa. "We have stabilized the bowel movement." – Indiana).

Although the animals which ingest the antibiotics are from different species, there is a sameness to the professional associations which annually hold conventions in their names: The National Pork Producers Council, The Poultry and Egg Institute of America, The National Cattlemen's Association. Like gypsies, the drug company salesmen troop from one huge gathering to another, with their collapsible booths, automated slide shows extolling the wonders of their drugs, boxes of free trinkets and piles of glossy, colorful brochures. For many, the most profitable products are antibiotic feed additives, since they are used subtherapeutically every day rather than only occasionally for the specific treatment of disease.

In the late 1940s, Dr. Thomas H. Jukes, now Professor in Residence of Medical Physics at the University of California, Berkeley, discovered what he described at the time as, "A unique phenomenon – perhaps without precedent in the history of medicine." Jukes, and his colleague, E.L.R. Stokstad, found that when young chicks were fed a fermented ration containing the microorganism *Streptomyces aureofaciens*, they showed a dramatic increase in weight gain. The large pharmaceutical companies soon took note of what Jukes began describing as a "new growth factor," which promised increased gains of up to 20 percent. (No one knows even now why antibiotics increase weight gain.)

BY THE 1960s, the poultry, hog, and cattle industries had been revolutionized by the new antibiotic feed additives. Farmers and ranchers were able to raise stock in new, efficient factory-like feed lots and confinement systems, which because of crowding and stress would previously have left animals highly susceptible to disease.

Once word got around that these new "wonder drugs" could bring a substantial reduction in disease as well as an increase in profit margin, farmers flocked to get



in on the boom. Whereas in 1960, livestock producers still used only slightly over one million pounds (largely as a feed additive), by the early seventies they were buying approximately eight million pounds a year, almost an eightfold increase.

With antibiotics, more animals could be raised in less space, on less feed over a shorter period of time and at a lower cost to the consumer.

For many in the drug and livestock industry, the introduction of antibiotics made it look like a millenium was near.

But as antibiotics came to be a larger and larger factor in meat production, a number of microbiologists began to worry about the ability of pathogenic (harmful) bacteria to adapt and develop resistance, rendering the newly discovered generation of wonder drugs ineffective. They were particularly concerned over the way these antibiotics in both human and animal applications killed off susceptible bacteria, leaving only those mutants which were resistant. Without competition, the mutants multiplied and replaced those bacteria killed by the toxic effects of the antibiotics.

In itself, this phenomenon was alarming. But when in 1959 Japanese researchers showed that resistant bacteria had the capacity to transfer their resistance to other strains of bacteria, many microbiologists became deeply troubled.

ONE OF THESE MEN IS Dr. Dwight Hirsch, Associate Professor of Microbiology and Chief of the Microbiology Service at the Veterinary Medical Teaching College at the University of California at Davis.

"In effect what we have been doing with the massive use of antibiotics is selecting for resistant mutant strains," says Hirsch. "But we have also been selecting for bacteria which have recently acquired resistance through a very special mechanism called R-plasmid transfer. The R-factor, or extra chromosomal bits of genetic material (DNA), are genes which are capable of transferring resistance from bacterium to bacterium. It doesn't matter whether a strain of bacteria is pathogenic or non-pathogenic, of animal origin or human origin, these genes can jump independently free from one bacterium to another during the process of conjugation. It's a frightening phenomenon to me as a vet. We simply have to find some way to control these antibiotics or we're going to find ourselves heading down the track to self-destruction."

Hirsch looks to be in his forties. He wears a short-sleeved shirt and brown Levi trousers. He has a pleasant, although restrained, smile which suggests a certain shyness. What one notices most about Hirsch's physical appearance, however, is his deep blue eyes, standing out against his tan face.

As he talks, he tilts back in a chair, in front of one of several institutional-issue gray desks squeezed into the small campus office he shares with several other researchers. The occupants have made a halfhearted effort towards privacy by making a partition with an upright metal bookcase. But the room's so small, that the effort is only partially successful. The academic clutter (technical journals, books, lab equipment, coffee cups, correspondence, monographs and white lab smocks) on each desk interlocks with the clutter from the next, so that it is hard to know where the territorial imperative of each of the office's occupants begins and ends.

"For me, this interest in antibiotic resistance began back at the University of Missouri seven or eight years ago, when we began doing some studies for the Food and Drug Administration," says Hirsch. "The question we were asking was this: What effect do antibiotics have on the transfer of resistance from animals to humans?

"We all know that bacteria which colonize humans become resistant if exposed to prolonged use of antibacterials. But we wanted to find out if there was any crossover bacterial resistance from

animals, which were receiving antibiotics, to humans. We wanted to test the hypothesis that these were two separate universes of microorganisms with no overlap.

"What we did was to take harmless but highly antibiotic resistant strains of bovine *E. coli* (isolated from cows) and fed them to human volunteers. We wanted to know two things: Could these bacteria of animal origin live at all in the human intestinal tract, and two, if we fed these volunteers antibiotics, would these resistant bacteria respond.

"The upshot of the tests was that it proved very difficult for animal strains of *E. coli* to survive when ingested by humans. They disappeared very quickly. This wasn't entirely unexpected since the English had done some earlier work showing that even if you introduced massive strains of bacteria from animal origin into the human gastro-intestinal tract, they disappeared within a day, because there is a real incompatibility between the floral environments of members of different species.

"But what we did learn of interest in these experiments, was that if we administered antibiotics to the volunteers at the same time that we introduced *E. coli* of bovine origin, the foreign bacteria remained healthier and survived a lot longer.

"YOU SEE, there is an inborn resistance in every animal to being colonized with bacteria from another species whether pathogenic or not. We call this 'colonization resistance'. In other words, the bugs that live in the human stomach live there, and not in a cow's stomach, because they are optimally suited for it. It would even be difficult to take *E. coli* from me and give them to you, and have them thrive in your intestinal tract because of your inborn colonization resistance.

"But we found that one good way of screwing up this inborn colonization resistance is to feed an animal or person antibiotics.

"About 99 percent of your intestinal flora is composed of anaerobic (lives without oxygen) bacteria. If you decrease those with antibiotics, then other resistant foreign strains can compete pretty effectively for the home niche. But when the antibiotics are withdrawn, resistance to outside colonization returns. Your own normal flora, (those bugs which are more apt to be in residence when there is no selective pressure), return, compete with, and exclude the outside bacteria.

"What we're talking about here is not just the fact that bacteria can become resistant to antibiotics (or perhaps it would be more accurate to say that they select for mutant or already resistant strains), but that they also upset the natural balance of the floral environment making it more susceptible to bacterial strains bearing resistant genes.

"These genes have been floating around the environment for years, probably forever. Nobody really knows what their function is in the grand scheme of things. All we know is that by using antibiotics frequently or unnecessarily, we were helping these bacteria with resistant genes along by killing off their natural competition.

"As researchers got deeper into this problem, we discovered that there was another and more complicated aspect to antibiotic resistance. This was plasmid-mediated resistance which I mentioned earlier. These R-plasmids are tiny microscopic strands of braided DNA in a double helix shape, which can carry genetic information, such as antibiotic resistance. The interesting thing about plasmids, however, is that unlike the regular chromosomes of a cell, they travel from bacterium to bacterium.

"They're like two ships at sea transferring mail," says Hirsch with a bemused expression.

"It's as simple as that."

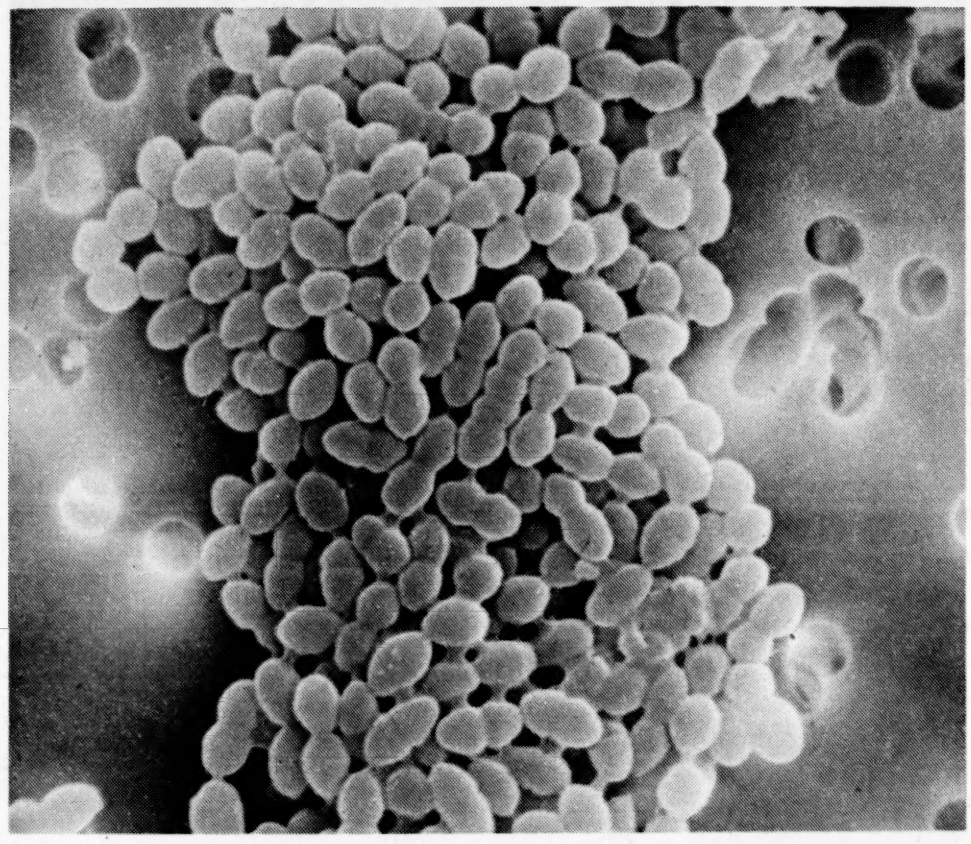
Hirsch leans forward, and points to a photo above his desk of two cells under a microscope transferring plasmids. The photo shows two fuzzy caterpillar-like blobs connected by a long tube, or pilus, through which the plasmids pass from one microorganism to another during conjugation.

WHAT IS EXTRAORDINARY about the plasmids is not only their almost promiscuous ability to transmit resistance, but the speed at which they do so. One resistant cell can render an entire recipient population of bacteria resistant in a matter of hours.

In one experiment, where a patient under observation was given a standard dose of 250 mg. of tetracycline four times a day, after only 36 hours the percentage of tetracycline-resistant *E. coli* had risen to 95.

"To me, the implications of this kind of finding are very scary," continues Hirsch somberly. "Through plasmid-mediated resistance, a bacterium acquires the ability to protect itself by secreting certain enzymes like beta lactamase which breaks down the antibiotic.

"What we are confronted with is the spectre of a completely harmless bacterial strain, like *E. coli*. which lives in the gut of warm-blooded animals, becoming resistant to a certain antibiotic, and



Streptococcus faecalis **cells conjugating**

Within the walls of the cells touching here, plasmid transfer is taking place. This is how bacteria share genetic information, including instructions on how to resist antibiotics.

This is a different kind of bacteria than those discussed in this article, but the conjugation process is similar and *Streptococcus faecalis* ***(called "the strep equivalent of E. coli") is more susceptible than many to having its picture taken. Dr. Gary Dunny of Cornell University prepared this 10,000 X electron microscope magnification.***

then passing on that resistance to harmful bacteria, which cause diseases such as Salmonella or gonorrhea in humans."

Not only have researchers shown the capacity of R-plasmids to transfer resistance to a specific antibiotic, but that the transfer of resistance to one often carries with it resistance to as many as ten other antibiotics at the same time.

Furthermore, one of the path breakers in plasmid research, Dr. Richard Novick of the Department of Plasmid Biology at the Public Health Research Institute of the City of New York, has estimated that there are at least 356 plasmid-like extrachromosomal elements which can transfer genetic information from one bacterium into a simple *E. coli.* In effect, what he has said is that these highly mobile and exogenous bits of plasmid DNA are capable of having a greater genetic impact on a recipient, like an *E. coli* bacterium, than all of the DNA content in the host organism's own chromosomes.

"The gut bacteria of animals and men, their R-factors, and human pathogens form a linked ecosystem of their own in which action at any point can effect every other," says ex-Commissioner of the FDA Donald Kennedy, a strong opponent of the unrestricted use of antibiotics as a growth-promoting feed additive for animals. "The vulnerability of microorganisms to antibiotics is a kind of commons – a resource, which if we consume it by the use of antibiotics for non-medicinal purposes in animals, is diminished in man. The benefit of using these drugs routinely as over-the-counter products to help animals grow faster, or in prophylactic programs does not outweigh the potential risk posed to people."

But the spokesman for the Animal Health Institute (a drug company lobbying group in Washington, D.C.), I.A. Solomon, Director of Agricultural Research at Pfizer, calls R-plasmid transfer "highly improbable" and "theoretical," claiming that there is "absolutely no evidence that people have gotten sick as a result of subtherapeutic use (of antibiotics) in animals."

To date, although there have been numerous incidents of death, even epidemics, attributable to resistant forms of disease organisms which have not responded to antibiotic treatment, there has been relatively slim evidence attributing human death to organisms with resistance acquired from animal organisms. When someone becomes ill or dies, it is hard enough to ascertain the presence of resistance, much less trace it back to its origin.

NONETHELESS, ONE CASE IN the United Kingdom does suggest that R-plasmid transfer from animals to humans is not as "improbable" as Mr. Solomon might believe.

During the years 1963 - 1966, an outbreak of Salmonella, caused by a resistant serotype *S. typhimurium* bacteria, swept uncontrollably through cattle herds. Attempts to

treat and control the disease were ineffective, and only rendered the pathogen more and more resistant to more and more drugs. As cattle were marketed across Britain, the disease spread. Not only did thousands of cattle die, but many humans became infected. Seven died. Researchers blamed much of their difficulty in treating the disease on plasmid-mediated resistance.

A subsequent report presented to Parliament by the Joint Committee on the Use of Antibiotics in Animal Husbandry and Veterinary Medicine (the Swann Committee), led to the banning of antibiotic feed additives for animals in Britain if the drugs were also commonly used in human therapy. A vet's prescription was required on all other antibiotic feed additives.

The Netherlands, Germany, Norway, Sweden and Denmark have also followed suit and similarly restricted the use of antibacterials in animal feed.

"Many farmers are in the habit of just covering themselves with antibiotics," says Hirsch. "They're not treating a specific disease. For instance, they're just blasting animals with drugs for safekeeping as a prophylaxis before shipping when stress makes them vulnerable to disease.

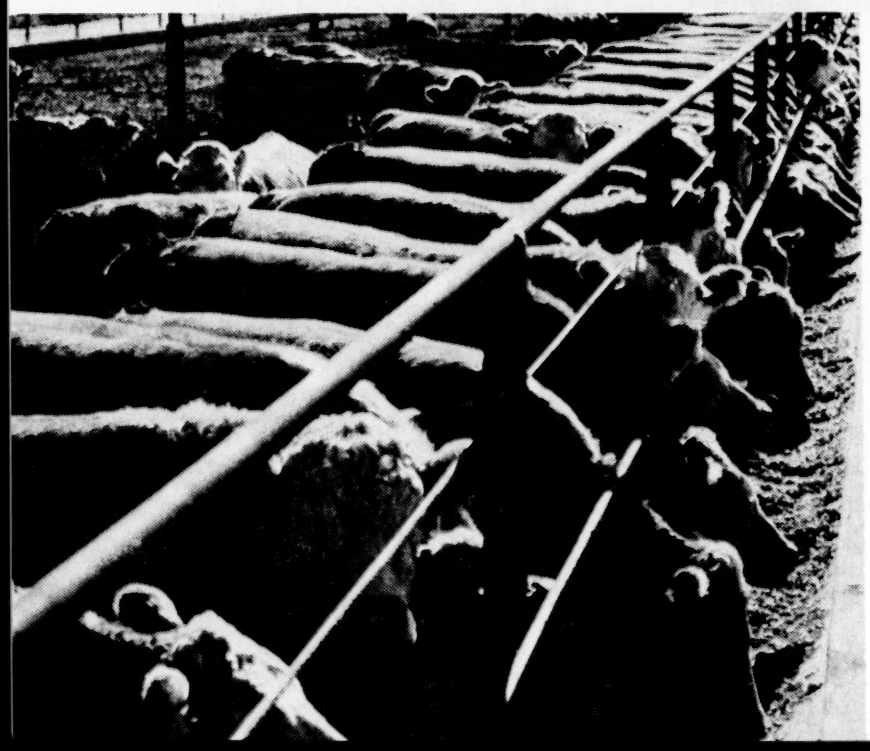
"I would say, rather than blasting a whole herd of 5,000 animals with penicillin just to save a few from breaking out with shipping fever, better wait and just treat the sick ones. Otherwise what you end up doing is selecting for resistant strains of Pasteurella, which are what is causing the shipping fever in the first place. Then further down the line, when the bugs won't respond to penicillin at all, you are in real trouble.

"Not long ago, one of our mobile vet teams was called out to a feed lot where they had some serious resistance problems," Hirsch continues. "The cattle had had so many antibiotics over such a prolonged time that they were no longer responding and were getting sick. Finally, we just cut out the antibiotics altogether and watched to see if the resistance would go away. And indeed, when we stopped, the count of resistant bacteria just fell through the floor.

"Here at the school of veterinary medicine we teach our students with a vengeance that an antibiotic is a super drug if rationally used. But if it is misused, it will come back to haunt you. It just doesn't work.

"Using these drugs provides a short-term gain against a long-term risk. You have to assay the risk of treatment with the risk of disease. Often the risk of disease may be the lesser of evils. To use drugs as an insurance policy against possible disease, or so that the animal will gain weight a little better is in my mind an irrational use where the risk far outweighs the gain.

"There are strains of bacteria, of both human and animal origin, which were very sensitive to antibiotics up until five or six years ago, and now they are resistant. They're resistant because they have acquired genes from the resistance pool in our environment that they never had before. In my mind as a vet, the greatest contributor to that resistance pool has been the food-producing animal."



"IT'S AN ATTACK ON THE FREE enterprise system, that's what it is. The next thing you know, they'll have Dan Rather on TV claiming that antibiotics are poisonous," says Thomas Jukes of attempts to restrict animal use of antibiotics. Jukes pioneered the field of antibiotic feed additives and is an acknowledged authority in the field. He recently received the American Chemical Society's Award for Advancement or Application of Agriculture and Food Chemistry, and has been a consultant to American Cyanamid.

"The usefulness of antibiotic feeding can be measured in the marketplace," explains Jukes. "If resistant pathogens appear, the economic advantages will disappear, and so will the use of antibiotic supplementation. In the meantime, I don't think we have so many cattle, pigs and chickens that we can afford to ignore feeding them by the most economical means."

"Of course, the minute you call to restrict antibiotic feed additives, the drug and the livestock industry people immediately cry out that the cost of meat will go up," rejoins Hirsch. "But so what if it goes up a dollar a pound. That doesn't bother me as much as taking one hell of a risk. It's a risk which is . . . Well, I don't even think you can put a price tag on it."

"The risk is theoretical," says D.L.M. Skamser of

the American Cyanamid Co., the largest manufacturer of tetracycline feed pre-mixes. "We need more study."

THE UNIVERSITY OF CALIfornia at Davis' Veterinary Medical Teaching Hospital is a large, square, concrete building that rises incongruously above the flat Sacramento Valley.

Although the University of California has added several new buildings, the campus still has a rustic air. A large pile of hay sits beside a newly asphalted parking lot. Odors from a manure treatment lagoon waft over the test plots for corn and cotton. From a distance, a row of confinement sheds for dairy cattle is hardly distinguishable from student dormitories.

In front of the hospital, several white pickup trucks, specially outfitted mobile animal hospitals, await calls.

We walk in through a side door. Hirsch has agreed to lead me on a tour of the route that a resistant bacterial sample will travel before it arrives at his own lab for further study. As we enter the air-conditioned building, a baleful looking police dog is wheeled down the hall strapped to a mobile litter.

"Putting these things together into one big package is very unsettling," says Hirsch as we walk. "We're finding organisms containing genetic information which they shouldn't contain. They are showing characteristics which belong to other organisms rather than their own. We're finding resistance generated from organisms which normally inhabit the enteric tract showing up in bacteria from the respiratory tract.

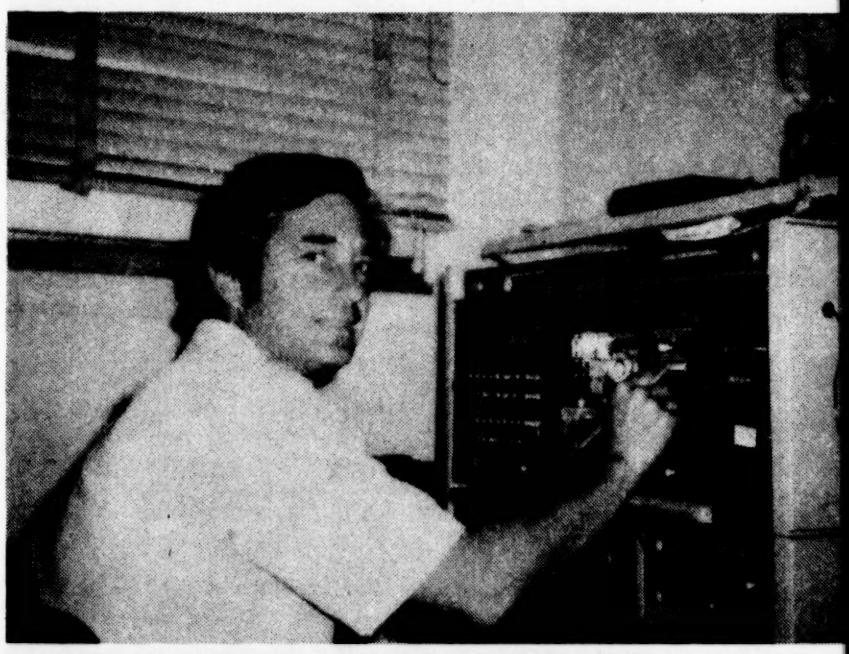
"We've begun to get some strains of bacteria in from swine in the Midwest which were previously sensitive to antibiotics but now are not. It's the same old story. From somewhere, they've acquired an R-plasmid that's made them resistant.

"There have been some other cases where we have tested resistant bacteria of human origin and found that the resistance genes were almost, if not completely identical to those found on organisms from food-producing animals consuming antibiotic feeds.

"The *Hemophilus influenza*, for instance, which causes meningitis in children, is another interesting example. About five years ago some researchers isolated samples of this bacteria which were resistant to Ampicillin, the drug of choice in treating it. Closer examination showed that these resistance genes were indistinguishable from those we usually find located in the gastrointestinal tract of food-producing animals. They surmised that the resistance factor must have been plasmid-mediated and come from a coupling with a completely different strain of bacteria.

"Stanley Falkow, a microbiologist up at Washington University, who is about to move to Stanford, suspects that the penicillin resistance of the gonococcus bacterium (which causes gonorrhea), may also be able to be passed to the microorganisms which cause meningitis in adults.

"The problem here is first that a physician may not know he is dealing with a resistant strain, and second, even if he does, he is often left only with alternative therapies which are very, very toxic. In the case of meningitis in children, the alternative to Ampicillin is chloramphenicol, a drug which sometimes causes aplastic anemia as a side effect."



Microbiologist Dwight Hirsch's studies lead him to fear that even household pets may transfer antibiotic resistance to us.

"PENICILLIN IS SUCH A charm," says Hirsch nostalgically, as if it were already a thing of the past. "Except for those people allergic to it, it used to be almost foolproof. It's cheap and nontoxic. If it's taken away from us by resistance, we're going to be in trouble.

"Some people say that as the bugs get resistant, all we have to do is turn to new antibiotics. But not only do we have the problem of toxicity in new drugs, but the sad fact is that we have not discovered a new class of antibiotics in fifteen years.

"There has been talk in Washington at the FDA about limiting the use of penicillin and tetracy-

cline, two large animal feed additives, because they are also used commonly for human treatment. That's all well and good. But we have discovered another ominous aspect of R-plasmid transfer. We have learned that one of the unique features about plasmids is that through them many kinds of resistance are linked. Let's say that subtherapeutic doses of tetracycline via animal feed additives had selected for a tetracycline resistant strain of bacteria. Now, when R-plasmids from this strain transfer resistance to another kind of bacteria, they often not only render it resistant to tetracycline, but to several other antibiotics such as streptomycin or sulfonamides as well. The antibiotics don't even have to be closely related. We find plasmids which can carry resistance to as many as ten different drugs at the same time.

"YOU JUST CAN'T SAY, as the animal health industry does, 'Let's preserve human drugs for humans and animal drugs for animals,' because these drugs are all linked together. They are linked in the strands of DNA. Resistance to tetracycline, streptomycin and sulfonamides are all located on one piece of DNA. It's a package proposition. The other varieties of resistance just tag along like a caboose. It's very difficult to find an antibacterial which only creates a resistance to itself.

"The drug companies are trying to keep up with bacteria that kill men and animals," continues Hirsch. "But they just can't do it. As soon as you hit a man or animal with a new antibiotic, the resistant genes get that selective advantage over their neighbors. Almost without exception resistance to these new potent antibiotics, designed for instance for people with burns or cancer, show up on our plasmids.

"It's just very simple. Like night and day. You develop a new antibiotic, and in a short time you get this fine resistant bacteria. Slowly we are altering the genetics of some very critical microorganisms."

Two of the nation's most prominent authorities on plasmid-mediated resistance, Stanley Falkow, Professor of Microbiology at the University of Washington Medical School, and Lynn Elwell, Group Leader in Microbiology with Burroughs-Welcome in North Carolina, have noted with tragicomic irony, "While committees of scientists and laymen banter about recombinant DNA around conference tables, Nature, in introducing R-plasmids in *Hemophilus influenzae* and *Neisseria gonorrhoeae*, has been conducting experiments prohibited under the National Institutes of Health guidelines for recombinant DNA."

Our first stop in the Davis hospital is a large windowless room with concrete floors and rows of fluorescent lights which hang over banks of stainless steel counters and sinks. One counter is piled with heaps of spleens, livers and kidneys, as well as a large heap of ground meat. At first glance, the scene suggests a butcher shop or institutional kitchen. However, a small plastic plaque just above the door proclaims it as the Necropsy Room.

"This is where they dissect and autopsy an animal, and grind up organs or muscle tissue for testing," announces Hirsch, smiling and nodding to two female vet students wearing white smocks and stethoscopes.

"When a drug company tells you that you can cure bloody scours (diarrhea) in pigs with drug X, that's a pretty general statement. I mean, what are you actually testing? Who has taken the time to isolate the bacteria? Often no one.

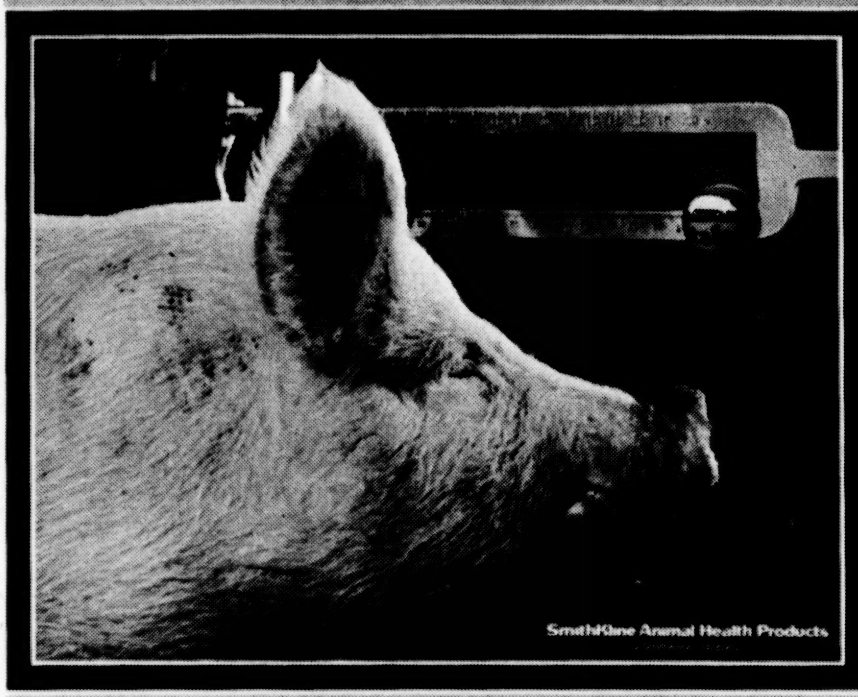
"How does one know that the pigs wouldn't have gotten better without the antibiotic? I bet you that nine times out of ten they would have. There is very little evidence here. But people go right on using the drugs, when I suspect often they aren't working because the bugs are resistant already. We're just pouring more drugs into animals via feed additives and we don't even know if they are still effective.

"I think the way that we now raise livestock, in large confinement barns, feed lots and poultry barns, is very much part of the problem. The animals are placed in stressful and often unsanitary environments which are not natural. All this predisposes them to disease. The availability of antibiotics allows many farmers to substitute drugs for good management and hygiene.

"The drug industry says that even though we have been using antibiotics as feed additives for twenty-five years, there is very little evidence that they are losing their effectiveness because of resistance. But that's not true," says Hirsch, a stridency creeping into his voice. "You cannot practice at a veterinary hospital such as I do here at Davis and still believe that. The loss of antibiotic effectiveness is very substantial. This fact comes home to me every day in my research. We are finding that there are fewer and fewer drugs available to us."

Stafac growth promotant

keeps feed working overtime for economical gains



Feed represents 66.1% of the total cost of pork production. Stafac (virginiamycin) growth promotant keeps your feed working overtime to help your hogs gain faster on less feed and make more profit per hog.

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Slows the feed to speed the finish.

BESIDE A WATER FOUNTAIN, an obviously sick beagle is urinating on the floor. The young vet student who leads him on a leash waits patiently for him to finish before beginning to clean it up.

Hirsch turns into a small room filled with scientific equipment.

"What we do here in the bacteriology lab is diagnostic work," says Hirsch, greeting the technicians, and then picking up a vial filled with a yellow liquid from an assortment of glass vessels waiting to have their contents cultured and identified.

"These are filled with samples of blood, pus, phlegm, and tissue which comes out of the necropsy room from dogs, cows, cats, pigs, chickens, etc.," says Hirsch putting down the vial. "We culture them to determine if they are bacterial or viral. If they are bacterial, we identify them and then perform susceptibility tests to see which drugs they will respond to."

Hirsch picks up a small flat glass petri dish filled with a sterile gel of blood agar, a medium in which bacteria are cultured. Two barely visible dark gray patches are growing on its surface.

At the rear of the lab, a young woman in a regimental white smock sits over a microscope examining stained slides made from one of the freshly cultured bacterial samples.

"Often a technician can identify a bacteria by sight," explains Hirsch. "But we also use a gas chromatograph which identifies the genus of a bacteria by analyzing the by-products it excretes." Hirsch turns and points to a machine that looks like a complicated microwave oven.

Next he walks over to a counter on top of which sits a pile of small plastic trays which look like ice trays from a miniature refrigerator.

"These are what we perform our susceptibility tests in," says Hirsch, pointing to one which sits in a compact device called a microinhibitor. Each of the small round holes honeycombing the tray is filled with liquid.

It is inside these small plastic trays that things get interesting for Hirsch. Although it is not evident to the naked eye, each of the pea-sized holes has been filled with different dose levels of one of the eleven antibiotics which the lab uses in diagnostic procedures.

Once the antibiotics have been fed into the tray, it is taken down the hall to another ingenious piece of equipment which inoculates each of the small wells of antibiotics with an equal amount of bacteria from the lab culture. The trays are then returned to the microinhibitor for observation.

"What we want to see," says Hirsch, "is which antibiotic and what dose will make the bacteria respond."

Indeed, if one looks very carefully, one can see that in some of the rows of holes, the liquid shows a progression from clarity to cloudiness. As the antibiotic gets stronger, and is thus better able to inhibit growth of the bacteria under study, the liquid is clearer. If the bacteria is resistant or insensitive to one of the antibiotics, it grows without impediment, giving the liquid a turbid look.

"These are susceptibility studies," says Hirsch. "When a disease bacterium comes in for testing, we not only have established what kind it is, but what kind of antibiotics it will respond to. With resistant strains of bacteria, this stage is crucial. There is no point in wasting drugs on resistant pathogens.

"It takes time and is costly to isolate an organism causing a health problem, and then perform susceptibility tests to see which drugs to prescribe," continues Hirsch. "That's only done a small percentage of the time. Mostly, a vet just goes in and uses a certain drug because it's worked in the past. If it doesn't work, well then you back up and take a culture and maybe do a sensitivity test.

"Recently, we did a survey of normal household dogs here in Yolo County, California. These were animals which, as far as anyone knew, had had no direct contact with antibiotics. And yet over 80 percent of these animals showed up with antibiotic resistant R-plasmids in their gastrointestinal tract.

"Now, the problem vis-a-vis dogs carrying such high levels of resistance is that people are in close contact with them. They pat them, play with them, dogs lick people, and pass on the bacteria from which the R-plasmids can migrate.

"Where are these bugs coming from? That's the troublesome question. The reason we did this study on dogs was simply to show how widespread these plasmids are. Of course, we are interested in the significance of all this in humans too. You know, normal humans like you and me who are not on antibiotics often have high levels of these plasmids in our systems anyway."

Other studies corroborate Hirsch's fears that animals close to us are capable of transferring resistance to humans. In a 1971 survey, less than 20 percent of wild animals tested (animals which had theoretically had no contact with antibiotics) showed any multiple R-factor resistance. Out of the cross section of domestic animals surveyed, 61 percent showed evidence of R-factor resistance.

"WE HAVE ACCOMPLISHED in half a century evolutionary changes that couldn't have happened in a million years," writes Dr. Ephraim S. Anderson, former Director of the Enteric Reference Laboratory in London, echoing Hirsch's words. "Recombinant DNA is tiddlywinks compared with what has been done ecologically to bacteria with the emergence of antibacterials."

Professor Stuart B. Levy, of the Tufts University Medical School, who did a survey on a farm using tetracycline-laced poultry feed, agrees. After several months of research, he found that those workers who were handling the fowl showed high counts of tetracycline resistant bacteria. Although these workers were not ill, since the resistant bacteria were nonpathogenic, Levy believes that his study begins to demonstrate the link between human and animal genetic pools. "The data from this and other studies argues strongly against present-day practice of unqualified unlimited use of antibiotic-supplemented feeds in animal husbandry," he concluded.

Back in Hirsch's own lab, adjacent to his office, a graduate student is at work with a centrifuge as we enter.

"In this lab, we take the organisms and try to characterize their resistance," says Hirsch. "Is it plasmid-mediated? If it is, are the plasmids like those usually found in that strain?

"We do studies with humans who are in contact with animals which are on antibiotic feed. We examine the transfer of the resistant genes from those animals to humans. That's one aspect of our work.

"We also are looking at the genetic and molecular basis of resistance in bacteria which were once very sensitive to antibiotics. We're trying to characterize the nature of that resistance. For instance, in Pasteurella, a major cause of shipping fever in livestock and disease in chickens and turkeys, R-plasmid resistance has caused sickness and million-dollar losses.

"What is interesting is that we do not yet know where the resistance is coming from, except that it is coming from outside and has characteristics not associated with Pasteurella itself.

"We're trying to trace back some of these R-plasmid resistance factors and find out the origins of the resistance by identifying the DNA compositions which differ between different groups of microorganisms.

"The evidence is there – that resistant genes can be passed. But it is hard to trace them back to their source."

OVER THE PAST TEN YEARS numerous efforts and false starts have been made by the FDA in an attempt to regulate antibiotic animal feed additives. While many independent scientists have strenuously urged that regulatory measures be taken, consultants and lobbyists for the drug industry have equally strenuously opposed them. Each side has amassed expertise and given hundreds of hours of testimony. The sum total of these herculean efforts has been an almost complete stand-off. In the absence of irrefutable evidence (what some regulation advocates call "the need to have the corpses piled up before they act"), the FDA, in whose jurisdiction the restriction of antibiotics lies, has been indecisive.

The most recent attempt hinged on a report in preparation by the National Academy of Sciences. When it came out last spring, it was deeply disappointing to people like Dwight Hirsch.

It concluded that, "postulations concerning the hazards to human health that might result from

the addition of subtherapeutic antimicrobials to feeds have neither been proven or disproven. . . . The research necessary to establish a definite risk has not been conducted, and indeed may not be possible. . . . A comprehensive, all-encompassing study could not be realized or even approximated because of insurmountable technical difficulties."

The report also seemed to say that the most logical criterion for regulatory action was whether or not an increased number of people had become ill because of resistance generated by antibiotic feed additives.

"There are no data linking human illness with the subtherapeutic use of antimicrobials in any aspect of animal husbandry," the report continued, then acknowledging, almost as a footnote, that it was still possible that hazards existed.

"I read that report and found it just incredible," says Hirsch emphatically. "They seemed to be asking the scientific community to show that antibiotic use in animals was contributing to infectious diseases in humans before they would recommend action. But that, in fact, is not the proof of whether our bacterial pool is getting resistant.

"IF YOU'RE GOING TO GET SICK with a particular microorganism, you get sick whether or not it is resistant. The problem arises not in the numbers of people that contract disease, but in whether or not they can be successfully treated. Obviously, if you're dealing with resistant bacteria, it will be harder to treat. But that's not what the government seems to be trying to prove. They're asking for some proof that there is an increase in infectious disease in humans as a result of the overuse of antibiotics, and that is an irrelevant piece of evidence.

"There is no connection between the problem of resistance and sensitivity to a drug, on the one hand, and whether or not an organism can cause a disease on the other."

"As over 100 billion head of livestock of various species have been fed various antibacterials over the past 25 years without one single incident of any drug-resistant zoonotic disease migrating into human population and creating an uncontrollable epidemic, it is obvious that the probability of such a hideous incident is below 100 billion to one," says Dr. Robert H. White-Stevens, of the Bureau of Conservation and Environmental Science, at Cook College, at Rutgers University to a 1978 Maryland Nutrition Conference.

"It cannot scientifically be concluded that such a fearful event will not possibly occur, but it can be concluded that the probability of such an Andromeda strain (engendered by continued use of antibiotic feed additives) evolving and cutting loose among the public is improbable and so remote as to be insignificant and trivial."

"If this ever goes through," says Gordon Kempe, Director of Animal Industry Research and Development of American Cyanamid, speaking of proposed controls on subtherapeutic uses of antibiotics, "it will be the largest single mistake the FDA ever made." He also notes that by the FDA's own estimates, restriction of animal antibiotics could cost the consumer over a billion dollars.

"There is obviously a tremendous amount of money involved in the manufacture of these feed additives." says Hirsch with a sigh, when I read him some drug company rebuttals to his conviction that the continued and widespread use of antibiotics is dangerous.

"I hate to think that such consideration might have an influence on the views of any reputable scientists. But I just can't see how any microbiologist, whether in the National Academy or not, can miss the danger.

"The problem of resistance and its transfer has already been demonstrated. Now the FDA wants us to spend millions more of the taxpayers' dollars to do it over."

"The pharmaceutical industry will challenge every statement we make," says Rosa Gryder in the FDA's Bureau of Veterinary Medicine. "They will say that there is no transferral of resistance, no human health hazard, no degeneration of the genetic pool because of antibiotics. They will challenge our scientists and our administrators. In the end, we lose most of our cases on administrative and legal slip-ups, on technicalities. They have smart lawyers. Ultimately they can always drag a decision out in court.

"I don't like making changes in the general food supply without knowing what the consequences are," continues Gryder. "I guess I'm just conservative that way. Others believe that a little pinch of something here, and another little pinch of something else there won't hurt you. But I must tell you that I have cut down on my meat eating since coming to the Bureau of Veterinary Medicine."

"HERE WE ARE," says Hirsch. "We're going into 1981. They had hearings four or five years ago, and we've gotten nowhere. We're just in a holding pattern. In fact, things are getting worse. The bugs are getting more and more resistant. We're finding more and more isolates from humans and animals showing

resistant organisms. You scream and holler and go to meetings. But, every time I go to a hearing or a meeting, I am confronted with people who get up and say that there is nothing more than an alleged problem. You just get into arguments. It's incredibly emotional. But nothing gets done."

As Chief of the Microbiology Service at the U.C. Veterinary Medicine Teaching Hospital at Davis, Dwight Hirsch is in a critical position to follow developments in antibiotic resistance. This hospital cultures hundreds of animal bacteriological samples every week, enabling him to keep an eye on the state of resistance in California's animal population.

"I wish that those who are playing down the problem of resistance were in our diagnostic laboratory and could see the nature of the strains which come in; or just look at the studies that show the large numbers of antibiotic-resistant bacteria which are now in our environment," says Hirsch wearily.

"When American Cyanamid or Eli Lilly & Co. says there is no evidence that the use of antibiotics fed to animals had led to problems of resistance, and when they say that there is no evidence that this will happen in the future, they're . . .," he pauses groping for words. "Well, what can you say, except that from a scientific standpoint, they are incorrect.

"If we keep using antibiotics, we're going to create an environment where only those microorganisms which are resistant to drugs are going to survive. And because of R-plasmids, these resistance genes are going to go wherever they want, into any species of microbe they want, and stay there.

"It's just a matter of time. It seems to me there is only one solution: cut back on drugs." ■

U.S. Department of Agriculture looks at organic farming, likes what it sees

by Rosemary Menninger

MANY ADVOCATES of small-scale agriculture have said for years that the USDA has blinders on, seeing the large, mechanized and chemically fertilized farm as the only viable means of growing food. But over the past year that tunnel vision has begun to broaden, at the insistence of successful organic farmers, rural community organizations and even some people inside government. The startling results of recent government reports on agriculture say the same thing that advocates of alternative agricultural methods were saying ten years ago.

Probably the most significant development was the release this summer of the USDA's organic farming study, **Report and Recommendations on Organic Farming**. It found that organic farming is widespread in America, encompassing all sizes and types of farms. It said the yields were slightly lower, but the costs of farming are much lower than they are for farmers using chemical fertilizers and pesticides.

The U.S. Secretary of Agriculture, Robert Bergland, was urged to conduct the study by a successful farming family in his home county in Minnesota. They had converted to organic practices several years ago, and told the Secretary that other farmers were doing the same. They said organic farming did not mean reverting to the horse and plow, it meant using good sense.

Bergland immediately launched a study of organic farming in the U.S., and the results may now bring a shift in agricultural research conducted at land grant universities. For the past 30 years virtually all of the universities' agricultural research has been directed to chemical farming and much of it has been subsidized by chemical companies. Consequently, the Cooperative Extension Services, a branch of the land grant universities which advises farmers, has been chemically oriented, basing its information on university research. The organic farming study may bring a new diversity to agricultural research and hence to USDA policy.

The status of small-scale agriculture is changing as well. Steven Kraten, a Limited Resource Farming Advisor for the State of Washington's Cooperative Extension Service, explains that, "Until recently, small farmers were thought to be in transition; either they were going to get big or phase out. The financial returns to the small farmer are so low that the only way to survive is to get huge. But now it's recognized that part-time farming is here to stay."

Many small farmers have jobs in town and so do their wives. This enables them to make payments on their land and equipment without expanding their scale.

Kraten points to other developments that are causing the government to take small farms more seriously. Small farms, he says, are known to be more efficient in the use of resources; and current energy, fuel and fertilizer shortages demand such efficiency.

Furthermore, says Kraten, recent studies conducted as part of the U.S. Resource Conservation Act show that current agricultural practices have caused the soil to erode and the groundwater to be depleted to an alarming degree. "The measures recommended to reverse these trends," he explains, "are the very things that alternative agriculture people have advocated for a long time." ■

Report and Recommendations on Organic Farming
United States Department of Agriculture
No. 001-000-04182-7
1980;
$4.50 postpaid from:
Supt. of Documents
U.S. Govt. Printing Office
Washington, DC 20402
or Whole Earth Household Store

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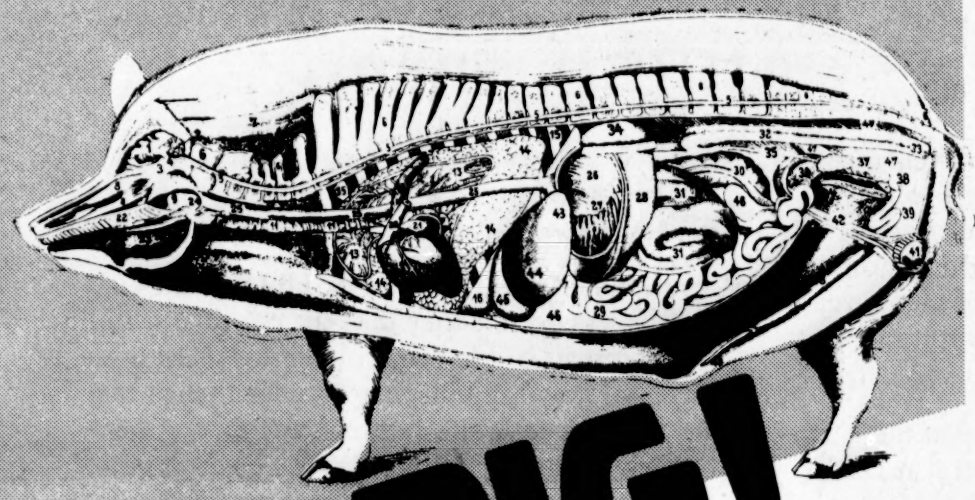
Currently, organic farming is limited in scope. The best opportunities for commercial-scale production are limited to situations where potassium and phosphorus fertilizer requirements are low, because of either low yield levels or a very highly buffered potassium and phosphorus status of the soil, or where there is large-scale importation of nutrients onto the farms in the form of feed, manure, sewage sludge, composts, or other organic wastes. Most organic farmers do not use organic practices for solely economic reasons. Rather, they are more concerned with protection of human and animal health, protection of the environment, energy conservation, and preservation of soil resources, and will, if necessary, accept some economic loss to achieve these objectives.

—from the **Report**



PIG!

by Frank Snider

Frank Snider began by experimenting with writing fables and then decided to work on a modern bestiary that would include both fables and facts. The research for that book led him to admire pigs more and people less and to start compiling a "Handbook of Hogritude," from which these factual fables are taken.

—Anne Herbert

AGRICULTURAL MACHINES

Pigs were among the first. They have rooting power.

They eat the seeds of the oak and beech and hazel while at the same time uprooting new growths. In this manner a herd of pigs can gradually push back the edge of the forest and clear new land for the farmer.

At this moment in history we need forests more than we need to have forests cleared and so this ability of the pig is no longer needed. But it was an important factor in the settlement of both Europe and America.

FECUNDITY

One sow breeding continuously for ten years could, if her daughters all did likewise, have seven million descendants by that time. It is something for a hog farmer to dream about.

EVOLUTION

One of the problems that evolutionists are going to ignore is that physiologically speaking, man is closer to the pig than any other animal. Because men and apes walk on their hind legs and have hands we automatically think of man as being more like the apes. But when we go beyond these obvious characteristics the story is more complicated.

In terms of coronary arteries, heart anatomy, blood clotting mechanisms, skin, digestion, and basic metabolism – to select just some examples – the resemblance is closer between pig and man. It seems that judging by appearances men and apes are closer but when one gets to intimate details that is not entirely true. Or as Dr. Dennis Sikes of the University of Georgia has said, "Man is more nearly like the pig than the pig cares to admit."

Or we could say that man is the pig that walks like a gorilla but no doubt many would object to that.

AESTHETICS

Artists have always kept their eye upon the pig. Durer and Cranach and Rubens and Rembrandt and Gainsborough and Chagall are but a sampling of the great names who have painted pigs. And why not? As G.K. Chesterton has pointed out, "The actual lines of a pig (I mean of a really fat pig) are among the loveliest and most luxuriant in nature. The pig has the same great curves, swift and yet heavy, which we see in rushing water or in rolling cloud. . . . There is no point of view from which a really corpulent pig is not full of sumptuous and satisfying curves."

HUNTING, POINTING AND RETRIEVING

The pig holds the distinction of being the only hunting dog who wasn't a dog.

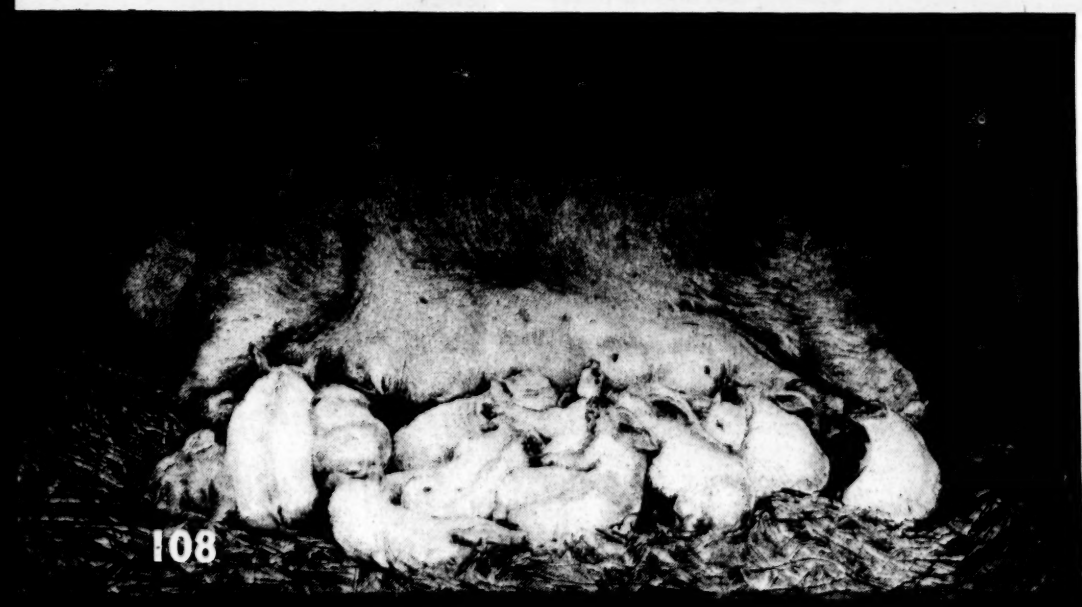
When William the Conqueror took over England he decided to reserve hunting for his Norman aristocracy. There would be no hunting for the English peasantry he announced and to make sure that his edict had a good chance of success he shrewdly forbade the peasants to have a dog bigger than lap size.

This was a serious blow to the peasants. They hunted, not for the sport of it, but because they needed the protein. In this difficult situation they turned to the pig and the pig, always the friend of the common man, responded. The peasants discovered that the pigs could be trained to be hunting "dogs" and what is more they were better at it than regular dogs. The evidence for this is that it was not necessary to train some of the pigs as pointers and some as retrievers. All pigs could do both equally well.

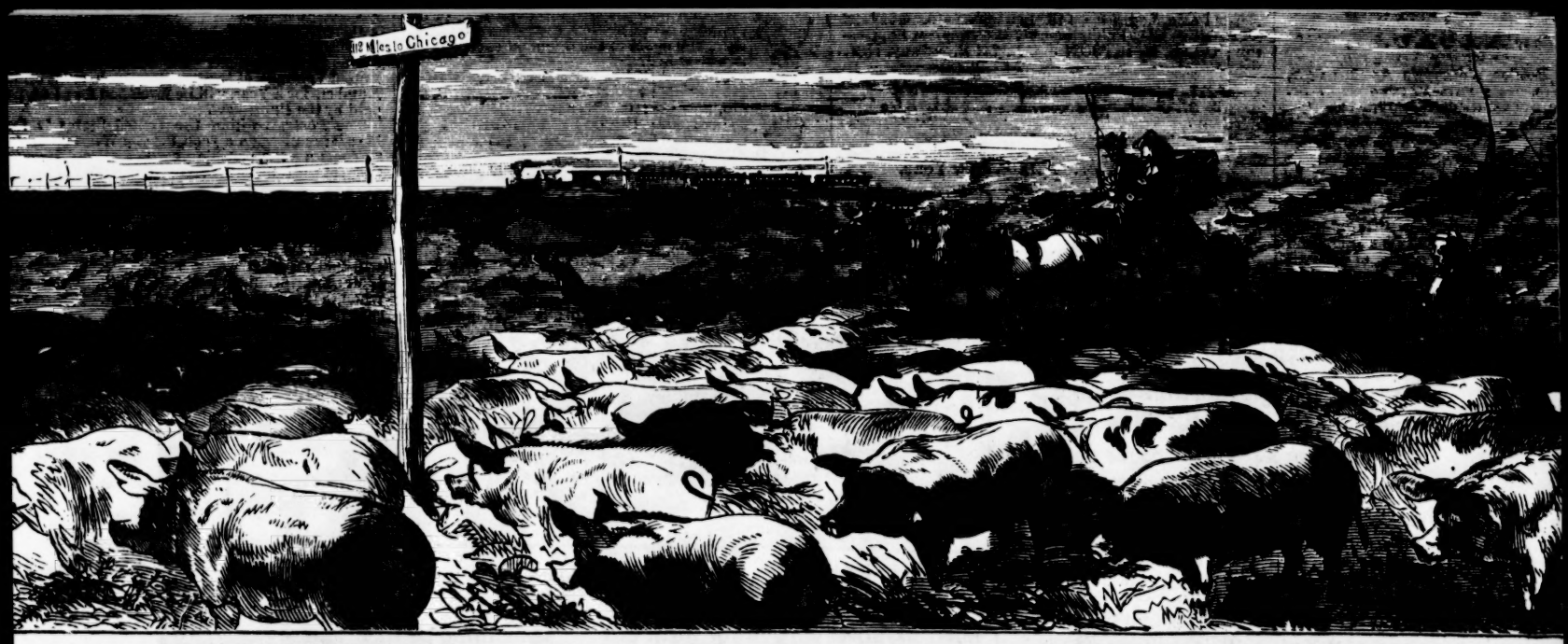
I.Q.

All the remarkable things that you hear about their intelligence are probably true. They rank right up with primates and dogs in this department. Exactly where they rank varies with the test and tester but in any case that is of small importance. Absolute ranking of animals is as silly as absolute rankings among human groups.

The important thing is that you should never underestimate the intelligence of a hog.



Sow and piglets by Carel Lodewijk Dake



Driving hogs to the Chicago Market, *Harpers*

PHARMACOPOEIA, PORCINE

The hog is something of a walking drug store. A sampling of the medical benefits we receive from him include:

Insulin which is extracted from their pancreas and used to save the lives of diabetics;

Thyroxine which comes from their thyroids and is used by people with thyroid troubles;

ACTH which comes from their pituitary glands and is used to treat arthritis and other inflammatory ailments;

The heart valves of pigs which are used as replacements for defective heart valves in humans;

And their skin which because of its resemblance to human skin is used as a temporary skin graft for severe burn victims. In the Phoenix Burn Center in Arizona there is a hog skin bank for this purpose.

TEETH

Like man, and unlike most animals, the pig has a full set of teeth. Maybe that's why man and the pig run towards corpulence while so many of the other animals are thin. The others just don't have the teeth to do justice to groceries.

NOMADS

Because pigs cannot be herded successfully, nomads have always disliked them. A pig's will, like the wind's will, and a boy's will is wholly capricious. They are as likely to be interested in what is to the right of them or to the left of them as they are in what is straight ahead of them.

Moving pigs over a substantial distance is an exhausting endeavor and to do it regularly, an impossible one.

The pig is wholly a farm animal. His domestication could not have taken place until agriculture had been established. Of course once the pig became indelibly associated with the farmer this gave the nomad another reason to hold the pig in contempt.

POLAND CHINA

The breed of pig with the most intriguing and glamorous name. However it turns out that they have no Polish genes in them and very few Chinese ones. They originated in the Miami Valley of Ohio and were named by a Polish farmer named Asher. In giving them this dramatic name he may have perpetuated his own little Polish joke upon the world.

LIQUOR

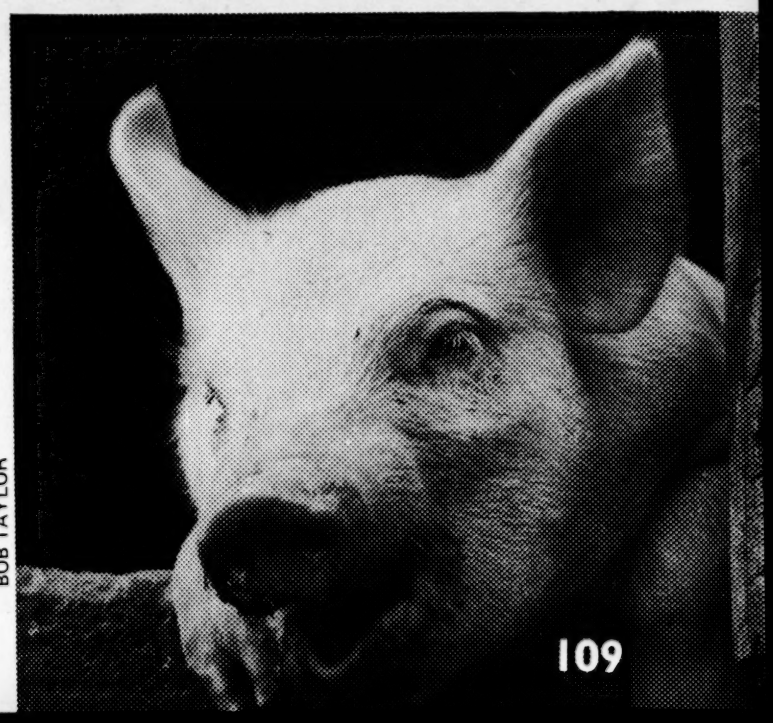
They are all for it. Once again they are similar to mankind in that they have a natural-born fondness for alcohol. There are some animals that cannot be made to drink but in the case of pigs it is hard to make them stop. One theory has it that pigs are particularly fond of screwdrivers but there is another theory that says they are fond of anything into which they get to dip their snouts.

CHINA

Pigs, alas, have no loyalty to either capitalism or democracy. In fact they turn out to be one of the secret weapons of the Chinese Communists. In spite of their enormous population and the bungling and tyranny of a wholly bureaucratic government, China does a surprisingly good job of feeding her people. However more of the credit goes to the pig than to Mao or any of his successors.

China usually has about 250,000,000 pigs on hand and they feed them without taking any appreciable amount of food from the mouths of people. The pigs must make do on cotton leaves, corn stalks, rice husks,

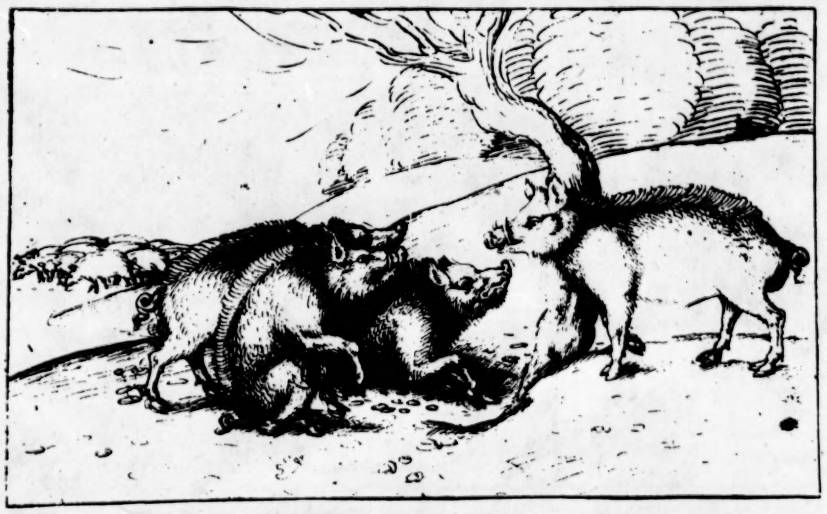
Skull of a babiroussa, *Lydekker*



BOB TAYLOR

water hyacinths, and similar non-edibles. Norman Borlaug noted that on this diet they started out rather scrawny and their growth was slow but eventually they became pretty decent looking hogs.

In the process they demonstrated something that we in America are tending to forget — the unique role of livestock is to make food fit for humans out of food that is not.



Family of swine, attributed to Martin Schongauer, c. 1491

VIETNAM

Even if we won't help the Vietnamese, the pig will. One part of the Vietnamese effort to rebuild their country is a program that hopes to get five tons of rice out of one hectare (2.471 acres) by means of one farmer and two pigs. The pigs are the key factor. This is not because of their meat but because a 110 pound pig during his life can turn waste products into a ton of fertilizer. And rice is very dependent upon such heavy fertilization.

Meanwhile back in America the pig manure that is helping to rebuild Vietnam is an obnoxious source of pollution. It is ironic that when pig manure is handled in an old-fashioned, backward way, it is a national resource but when it is handled in a progressive way it is a national problem. It is almost as though the word "progressive" needs some further defining.

SOCIOLOGY

As wild animals, pigs have a matriarchal society. Under the leadership of a boss sow, all of the females as well as all of the young males form the herd or family group. Meanwhile the adult males wander by themselves. They come running when the sows whistle for them but apart from that they spend their time solitary and sullen or else involved in pointless machismo struggles with other males.

This pattern of a) Matriarchy, b) Female control of mating, and c) the adult male as more the eternal adolescent than an adult is characteristic of the mammals. As with any generalization about animals there are exceptions to this one and most people would argue that man is an exception to this one. But it is not that simple. Man, or more properly, the human animal is an exception with regard to (a) but not much of an exception with regard to (b) and no exception at all with regard to (c).

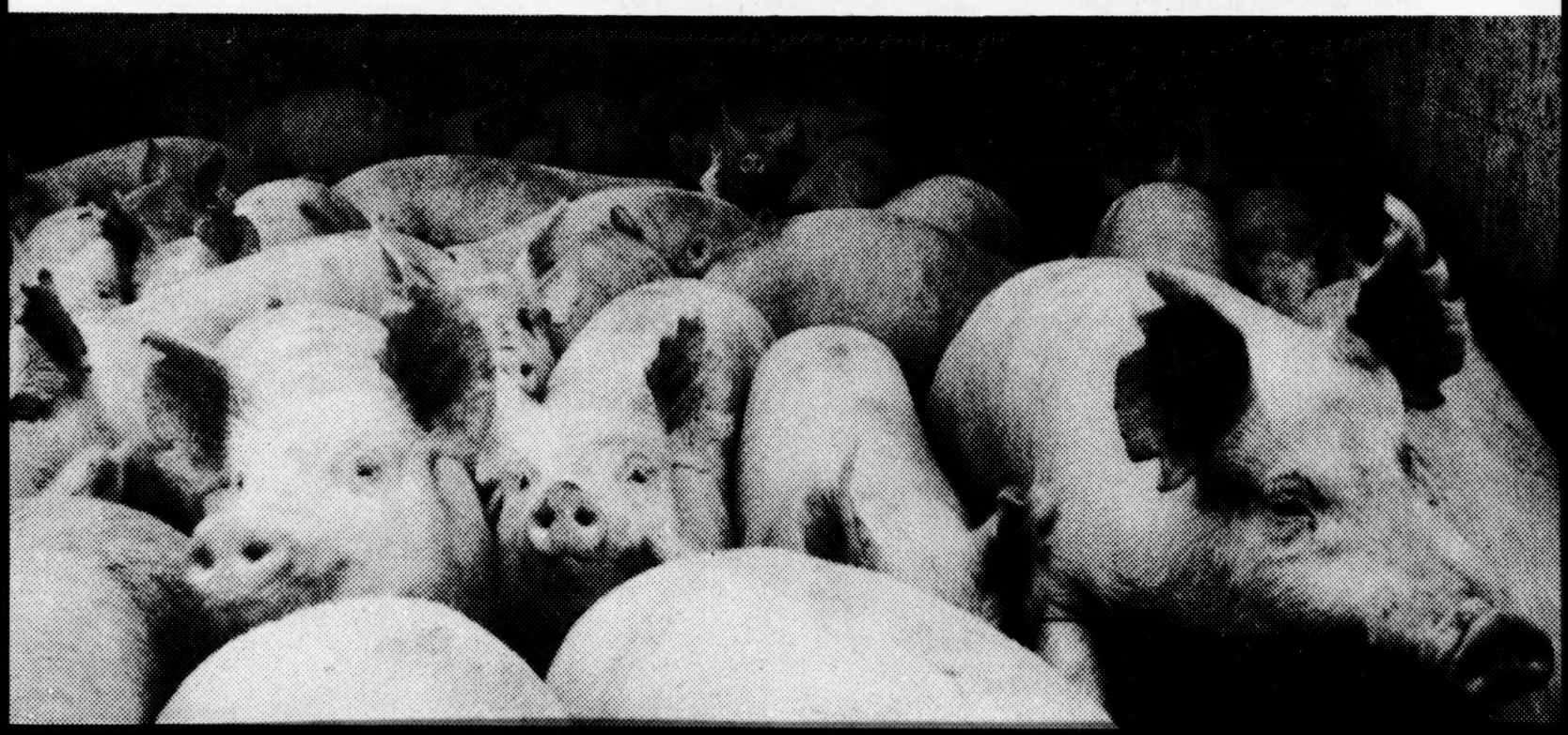
TORMENT

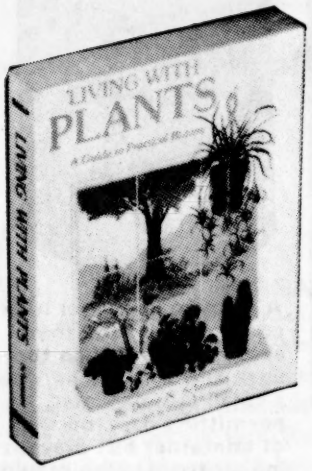
The day of torment is coming to the American hog. Factory farming, or the raising of hogs in confinement buildings, has already begun on a small scale and it will continue to increase. Just as the farm chicken has almost disappeared and is being replaced by a suffering creature who is treated as a production unit rather than a living being, so too will the same thing be tried on the hog.

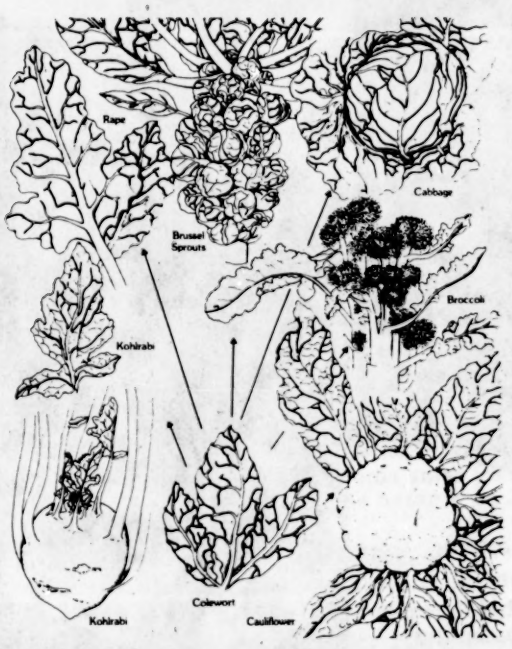
As one trade journal tells the farmer, "Forget the hog is an animal. Treat him just like a machine in a factory. Schedule treatments like you would lubrications." Then it goes on to suggest that the farmer should think of breeding and other steps in a hog's life as steps in an assembly line process that begins with breeding and ends with finished goods delivery to market.

The sickening treatment of animals that is factory farming is bad enough when it involves chickens. They of course feel pain and suffer frustration but they are low enough on the evolutionary and I.Q. scales so that we can describe their treatment as simple cruelty. In the case of the hog the situation is more complex and much worse. This is an animal who, apart from the primate family could be the most intelligent of them all. To torture him with the techniques of confinement farming comes close to doing the same thing with humans.

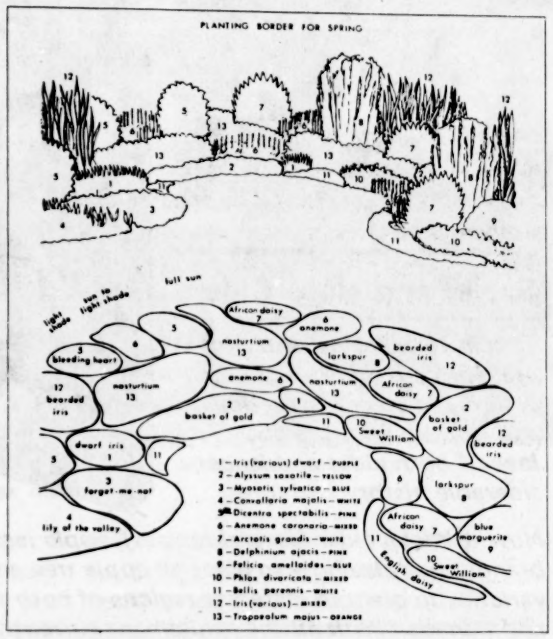
On the other hand this may not be much of an argument. Does not man do the same — in fact worse — to man? ■







Artificial selection over the centuries has modified the original wild cabbage Brassica oleracea **into a wide variety of productive and delicious vegetables.**



A garden plan to provide blooms during spring in the flower border. (From Kramer, Gardening and Home Landscaping, **courtesy Harper & Row).**

Living With Plants

This botany professor has taken all of the how-to's printed in current gardening books and woven them together with threads of why. It's an incredibly complete and clear botanical textbook on gardening, landscaping and houseplants. —*Rosemary Menninger*

Living With Plants
(A Guide to Practical Botany)
Donna N. Schumann
1980; 323 pp.

$14.20 postpaid from:
Mad River Press
Route 2, P.O. Box 151-B
Eureka, CA 95501
or Whole Earth Household Store

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Overwatering

Plants are much less obvious about having been overwatered than about being underwatered. Oversaturation usually occurs in pots without drainage holes or when water is allowed to accumulate in the saucer beneath the pot. The results are slow, insidious, and usually fatal.

The roots begin to suffer from lack of oxygen as the excessive water forces the air out of the soil and occupies all of the pores between soil particles. This lack of oxygen leads to metabolic break-down similar to salt poisoning. Root hairs die and decay begins. The decomposition process uses the little remaining soil oxygen and produces excessive carbon dioxide, thereby increasing respiration failure by the roots, and more root tissues die.

Forest Planning

Forest management may be a narrow field, yet it covers many broad acres. **Forest Planning** *is a new and useful antidote to timber company advertising and Forest Service and BLM regulators. It covers both private and public forests with as keen an eye to economics as ecology, and does it with nicely jargon-free detail.* —*Richard Nilsen*

Forest Planning
(Journal of the Nationwide Forest Planning Clearinghouse)
Joe Cone, Editor

$7.50 /year (12 issues) from:
Cascade Holistic Economic Consultants
P.O. Box 3479
Eugene, OR 97403

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The large corporate timber companies have overcut their own lands, and now want to cut on the *public* forests. Some, like Georgia-Pacific, see bigger profits in the south and are pulling out of Oregon. Others, like Weyerhaeuser, are now entering the federal timber market for the first time, a market now used by small independent mills. Who is going to win a bidding war?

More forestland (in Oregon) has already been cut-over and *not replanted* than could ever possibly be included in the Wilderness System. If we were managing our existing timberlands properly, we wouldn't have to even consider destroying our last wild forests.

Last year, a record 3.4 billion board feet of logs, nearly one-fifth of all the timber harvested in Oregon and Washington, was sent overseas.

Millworkers, longshoremen, timber companies, environmentalists and politicians have been bickering over log exports for years. But the rash of mill closures and threats of dwindling timber supplies have given the issue a new urgency and bitterness as millworkers and timber companies battle over what they see as matters of survival.

Pesticides and You

Written for farm field workers, and including an English/Spanish centerfold poster, this flier has useful information for anyone living where pesticides are used. Pesticide poisoning remains a "hidden" problem because cases often go unreported. You can find out who to complain to here. —*Richard Nilsen*

Pesticides and You
(A Guide for Farmworkers, Small Farmers and Rural Communities)
1980; 8 pp.

$ .75 postpaid from:
Rural America
1346 Connecticut Avenue NW
Washington, DC 20036

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What to Do If You've Been Poisoned

Wash yourself with soap and water and change your clothes as soon as possible.

Keep some clothes that were sprayed so they can be used later as proof that you were sprayed.

Go see a doctor at the health clinic.

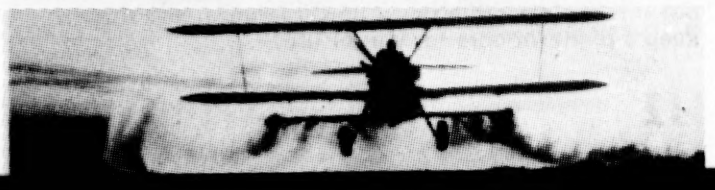
Try to report your illness within 24 hours to the Pesticide Lab in Texas. Call toll free 1-800-531-7790 (in the U.S. except Texas) or 1-800-292-7664 (in Texas).

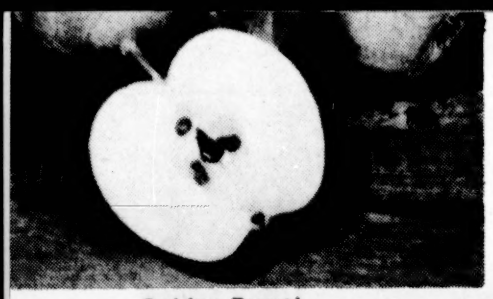
If you were sprayed from the air, try to remember the number on the airplane.

Tell the legal aid office in your area how you came in contact with the pesticide (call Migrant Legal Action in Washington, DC toll free 1-800-424-9425 to find the nearest office).

Wash your clothes before wearing them again.

Find out if you can get paid for wages lost due to pesticide poisoning.

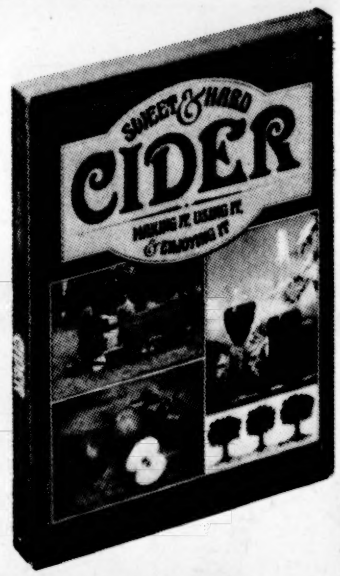




Golden Russet

Sweet and Hard Cider

This is an excellent and comprehensive book, full of sage advice and clear instructions, and infused with the authors' love of both cider and its considerable history and lore.



How to make cider (several recipes), apple jack, apple brandy, but also how to plant an apple tree and what varieties to plant in different regions of both the U.S. and Canada. With all the excitement currently bubbling about home-made alcohol, it's a pleasure to find some of it destined for palate and stomach instead of the engine of your car. —*Richard Nilsen*

Sweet and Hard Cider
(Making It, Using It, and Enjoying It)
Annie Proulx and Lew Nichols
1980; 267 pp.

$9.95 postpaid from:
Garden Way Publishing Company
Charlotte, VT 05445
or Whole Earth Household Store

Betty Crocker's Kitchen Gardens

This must be the real Betty Crocker, before she got packaged into cake mix. Her philosophy is that the kitchen, the garden and the children are as one, and the book excels on all three fronts. There is exceptional information on growing and cooking vegetables covering the art of harvest and planning meals around the garden's yield. Plus surprising things I never knew — like how to bring your herbs indoors and what kitchen scraps to feed them. The color illustrations are like those from old English story books — with children and bunnies romping through the cabbages. —*Rosemary Menninger*

Betty Crocker's Kitchen Gardens
(A Year 'Round Guide to Growing and Using Herbs and Vegetables)
Mary Mason Campbell
1971; 170 pp.

$4.95 postpaid from:
Golden Press
Western Publishing Co.
1220 Mound Avenue
Racine, WI 53404
or Whole Earth Household Store

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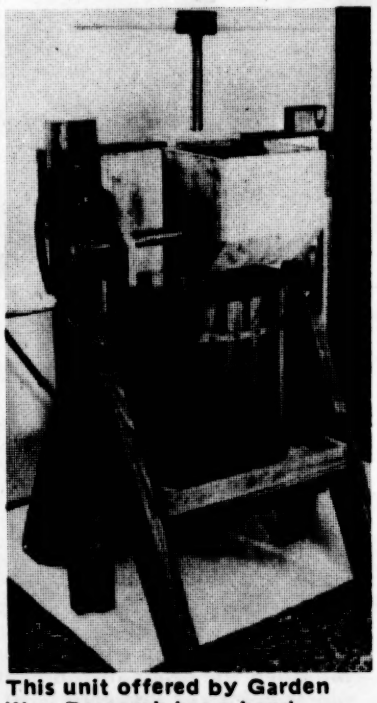
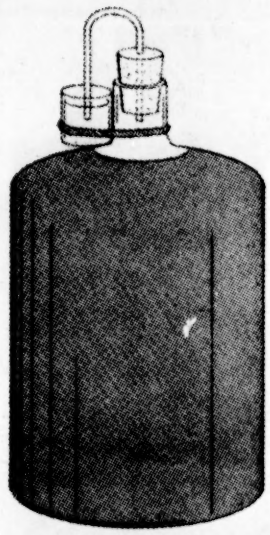
Rosemary must be brought indoors for winter in the North. It makes a delightful houseplant, a conversation piece, and a source of constant pleasure to the cook. Cut it back lightly before bringing it into the house. The size of a rosemary plant will often depend on the size of its container, and in a large pot you may grow a sizable shrub. If you want smaller plants, let the plants become pot-bound to keep down their growth. Rosemary must have adequate watering, although it will not live in constantly soggy soil. If you let the roots dry out completely even once, the plant will curl up the edges of its leaves, turn yellow, and die. When the top of the soil is dry to the touch, water well, and leave it until it again feels dry. Rosemary loves a warm, sunny place, and in a picture window becomes a plant of special beauty and enjoyment. Because dried or frozen rosemary leaves do not retain a desirable flavor and fragrance, you should keep a plant indoors for winter use.



This unit offered by Garden Way Research has a hand-powered fruit grinder mounted on top of the press basket.



A homemade water lock consists of a tube that extends up through the cork and then down into a small cup of water, permitting gas flow out of container but preventing air from being drawn into container.

•

How Many Trees Do You Need?

The amount of juice you get from your apples will vary with the variety, the summer weather, and the efficiency of your grinder and press. You can expect to get a minimum or two and up to three or just under four gallons of juice from a bushel (forty-five pounds) of apples. The worst rig we ever used, one with the grinder showing just the barest trace of teeth, with an undersized and spongy pressure-plate and missing basket-slats and no cheese cloth, still managed to squeeze out two gallons of juice per bushel. This wreck was the poor exception, for most presses will give from three to three and a half gallons per bushel. If your goal is to fill a fifty-gallon barrel with estate-produced cider, you will need twenty-five dwarf trees or seven semi-dwarfs.

1 dwarf tree = 1 bushel of apples
(1 semi-dwarf = 4 - 5 bushels of apples)
1 bushel of apples = 2 - 3 gallons of cider
25 dwarfs = 50 - 75 gallons of cider

Southmeadow Fruit Gardens

Rare and hard to find varieties of apples (almost 200 varieties), pears, stone fruits, grapes and berries. Also 15 kinds of hardy native fruits for wildlife and/or jam and jelly. —*Richard Nilsen*

Southmeadow Fruit Gardens
Catalog
$6 postpaid
Price list
free

both from:
Southmeadow Fruit Gardens
2363 Tilbury Place
Birmingham, MI 48009

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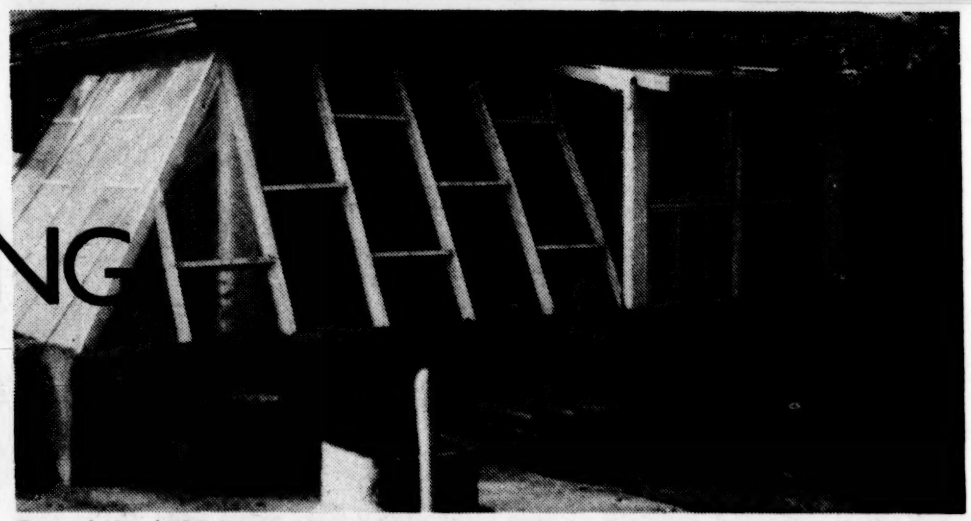
Apples — (Only dwarf on M-9, M-26; semi-dwarf on M-7 or MM-106, MM-111. If we cannot supply specified rootstock, will supply with a rootstock of similar dwarf or semi-dwarf habit. Standard tree can be obtained by planting graft union 2 inches below ground level.)

Adams Pearmain	Canada Red
Akero	Carpentin
Almata	Champlain
Ashmead's Kernel	Chenango Strawberry
Baldwin	Cherry Cox
Belle de Boskoop	Claygate Pearmain
Ben Davis	Cole's Quince
Black Gilliflower	Colvis Spice
Blacktwig	Cornish Gilliflower
Blue Pearmain	Court Pendu Plat
Bramley's Seedling	Cox's Orange Pippin

Left to right: Old Nonpareil, Newell's Large Winter, Northern Spy, Scarlet Crofton, Swiss Orange, Smokehouse

RURAL ORGANIZING

by Rosemary Menninger



One of the 1500 home solar greenhouses built in Alamosa, Colorado, in the last few years. This one belongs to Jose Martinez.

COMMUNITY ORGANIZING has come to rural America with an important lesson learned from the cities. The community work in small towns is being done by the people who live there who will be the ones to benefit from the results. Rural communities seem to be focusing their efforts on generating and conserving energy and encouraging local food production. Farmers markets, for instance, are springing up in many small towns as well as in major cities.

Bath, Maine

In Bath, Maine, the local food cooperative has constructed a passive solar heated storage building to keep locally grown fruit and vegetables into the winter months. Most farmers in Maine truck their produce to Boston, where it is sold to a middleman who trucks it back to Maine's supermarkets. But if local storage facilities catch on, Maine farmers will be able to sell their harvest locally and the stores will be able to rely on a supply of local produce through most of the year.

Alamosa, Colorado

Residents of the San Luis Valley in southern Colorado have built nearly 1500 solar-heated greenhouses in the past few years. The need for cheap heat and fresh vegetables through the cold but sunny winters are the reason solar greenhouses make sense here.

People of all income levels have attached solar greenhouses to their homes, often using recycled glass or plastic stuck together with adobe. Even a rudimentary solar-heated greenhouse brings warm air into the adjoining building; and Bob Dunsmore, of the valley's Solar Energy Association in Alamosa, says he only knows of one greenhouse in the area that is not being used to grow food.

In addition to home greenhouses, community greenhouses are also popular in the San Luis Valley. Dunsmore and his wife Julie are one of seven families constructing a 20' x 40' solar heated community greenhouse in Alamosa. Julie, who has managed a commercial greenhouse, says it will be big enough to supply winter vegetables for 20 families.

Another community solar greenhouse down the road in La Jara has not yet been geared up for winter food production. However, last spring it supplied vegetable seedlings to more than 1,000 local families for their home gardens. Because of the Valley's short growing season, a greenhouse is a big help in giving vegetable crops a jump on spring. Slow-growing plants, such as cauliflower and cabbage, can be raised here only when they are started indoors and transplanted outside after the last frost.

Bob and Julie Dunsmore have convinced the local Christian Community Services agency, which started a successful farmers market in Alamosa, to fund-raise for a travelling community greenhouse specialist. Such a person could help families develop systems for maintaining their greenhouses at maximum production.

The Dunsmores recently visited the Cheyenne, Wyoming community greenhouse, managed by Shane Smith, and saw that planning and organization make a world of difference. "The Cheyenne solar greenhouse produces tons of vegetables!" said Bob. Commercial solar greenhouses in Jackson, Wyoming, near Teton National Park, produce most of the vegetables consumed in Jackson during the winter. However, these vegetables are hydroponically grown, while Smith's are grown in containers filled with soil.

Eureka Springs, Arkansas

In Arkansas there's a statewide network of rural people who, among other things, have helped their neighbors build solar greenhouses. They are part of an alternative agricultural extension service organized to do what the government extension service has failed to do: help small farmers and rural communities.

Arkansas has hundreds of small farms, averaging only 40 acres apiece. Much of the land is hilly and the soil is red clay, so it doesn't lend itself to large scale farming. But partly because of the large number of small farms, Arkansas is one of the few states in the nation that produces most of its own food.

The alternative extension service is set up like the USDA's Cooperative Extension Service, with a farm advisor in every county. Cooperative Extension has been directed by President Carter to pay more attention to the needs of small farmers and low income rural families. But the Cooperative Extension agents say they don't have time, without cutting back on their services to the big farmers who depend on them.

So far, Arkansas is the first state to take matters into its own hands. The Ozark Institute, a non-profit organization in Eureka Springs, acquired CETA funds from the Arkansas Governor's office to set up the alternative extension program. Craig Fuller, of Ozark, explained that hiring local people to work in their own communities has been very successful. "Rural people have a thing against (accepting) assistance," he said. "But we haven't run into that problem because our people are part of the community. They were born and raised there and what helps the community helps them."

Many of Ozark's county advisors are part-time farmers, the majority of whom farm organically. Fuller says that they have been very successful in helping farmers switch from total reliance on chemical pesticides to an Integrated Pest Management approach which includes the use of chemical pesticides only as a last resort.

Some of the advisors are not farmers, but they help small farmers apply for government loans and services that only the big farmers have been taking advantage of. A few of the advisors work in the media, producing information programs for cable TV and community radio stations in rural areas. Fuller believes that the growing accessibility of the media in rural areas will help farmers share information and communities to determine and address local needs. ■

Autologic

by J. Baldwin

DRAWINGS BY PHIL FRANK

HERE COMES THE PARTHENON! It's whizzing down the road on the nose of what is supposed to be the finest car built, a Rolls Royce. The finest automobile made today shoves a chrome-plated model of a Greek temple through the air and pays about 10 miles per gallon to do so. "Built like a Rolls," we say. Countless manufactured items are compared to the Rolls. This hurtling place of worship is but one minor example of what I call "autologic," a way of thinking that makes sense only if many realities are ignored and only if you are selling cars. The Greek facade calls up a "classic" image. Lesser cars call up an expensive image by resembling the Rolls or other expensive cars. Thus we see most cars sporting ludicrously un-aerodynamic, gas-eating styling that now has implications as a threat to national security. Yet the shape of cars is not questioned in popular media, and government regulations ignore styling as well as other essentials of the automobile.

J. Baldwin is CQ's Soft Tech editor and a widely experienced designer and builder. He is currently working with the New Alchemy Institute in Woods Hole, Massachusetts.

The way that cars are designed and integrated into our society seems to be the result of some irrefutable natural law. Cars are so convenient. They work. There's an irresistible magic in being able to go where you want when you want. It's all so easy that there doesn't seem to be any reason to question the phenomenon. Question-raisers are also greeted with less than enthusiasm politically. There's good reason for that too; about half of the American paychecks come from some sort of involvement with the automobile! The economy of our nation rests largely on the auto and its "accessories" such as roads, bridges, parking lots, signs, fuel, repairs, shelters, administration, the auto-caused damage industry (hospitals, body shops, insurance), parking meters, meter maids and their scooters, unions, retirement plans, scooter mechanics (and *their* unions), etc. If you carry things all the way back to the raw materials you can see how pervasive the car has become to our nation's smooth operation. Even car haters have become so entangled in autologic that national criticism becomes difficult and academic analysis subject to severe distortions arising mostly from unsystematic examination of one small facet of a very complex matter.

Distortions of reality should not be too surprising considering the character of the industry involved. Generally speaking, the auto industry isn't too much different than others; the idea is to make a profit. But to make that profit, Detroit has to sell cars in large numbers. In a good year, three cars are made for each child born! Because cars have so many parts, and the parts come from so many sources, there is about a three year lead time necessary to get a new model into the showroom. A completely new model may require an entirely new factory. A recent front wheel drive compact was developed at a cost well over a *billion* dollars! Obviously, more profits can be made if the new model is not, in fact, new, but only seems that way.

Another ploy is to make the same car but with different nameplates at various levels of prestige. A cheap car gussied up to sell at a higher price brings in more profits. Prestige is mostly due to advertised image anyway. Remember the uproar when Olds owners discovered their cars had Chevy engines? That's nothing new! To make a model seem new or more expensive, the selling points cannot be the parts that are not new — the expensive parts. Consequently you see very little in advertising that refers to engines, axles, brakes, steering and roadholding. What you do see is "features." These tend to be fluff such as speeding temples, dashboard change bins, hidden headlights and black vinyl roofs that make it necessary to run the air conditioning on mild days. Features tend to be added on rather than being part of a concept. (Mechanical concept, that is. They certainly are part of a marketing concept.)

To generate the needed mass market, the features are heavily advertised as if they were important. The vital parts are not mentioned and consequently the public is never usefully educated. The public doesn't know enough to demand better brakes, for instance. Thus there is no incentive to develop good brakes, and you can still buy cars that cannot be stopped fast in a straight line. People assume that such things as brakes are automatically taken care of by the engineers, much in the same way one expects a Winchester to refrain from exploding in one's face. Not so in the auto industry. Of course brakes *could* be extolled as a sales feature, but market surveys have shown that such talk makes people think about safety and accidents, and that does not lead to a buying mood. In this way, essential issues are masked. About 50,000 people are killed every year in cars in the U.S.A. and not much is done about it despite studies showing that each death costs society nearly $200,000 in lost wages and work. (Grief isn't measured.) In the eyes of many designers, "safety features," as they are known, are optional or hated add-ons mandated by excessive government regulation.

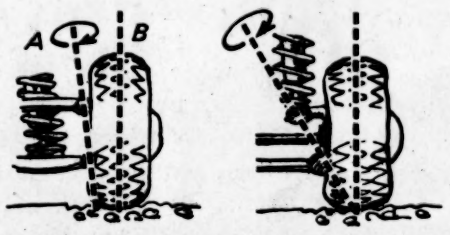
Other issues are masked too. The whole pollution controversy is one, and I'll not belabor it here except to say that there is more than corporate malice involved in the industry's attempt to discourage improvement except under duress. Not only does the pollution issue require an admission of corporate social responsibility, it requires expensive tooling for parts that can't be featured on the sales floor.

A Bargain at 40¢ a Mile

There's a mask on the actual costs of running a car too. Hertz has come up with figures that are so high they are hard to believe — up to 40¢+ per mile. But even that stunning price doesn't cover the less obvious costs such as repairing that hole in your driveway, and it doesn't admit the social costs such as the physical damage and work hours lost from accidents. "Life-cycle costs," the long-range total costs of owning a machine, are not available. I recently retired my trusty Citroën at 300,000 miles without an overhaul. At an extraordinarily low 9¢ per mile overall, it still comes to about $30,000! It's not exactly a conspiracy, but it is hard to come up with this sort of information. User costs could be cut by better fuel economy and easier repairability, but this would be at the expense of the formidable oil industry and the repair trade. Comparative costs of repair could be compiled from flat rate repair rate books and parts price sheets, but even Consumers Union doesn't attempt such a complex task. It'd be futile anyway; new cars are less and less repairable by owners with common tools.

Giving little thought to making cars easy to fix is typical of an industry that gives little thought to human beings anyway except in their role as buyers.

Most cars have poorly shaped seats that are designed to look good in the showroom. Those allegedly fit 99% of the customers. That sounds good until you figure that with an annual production of 6,000,000 cars there are tens of thousands of cars with uncomfortable drivers. Sharp trunk lid corners menace unsuspecting heads. Irritating reflections of the radio speaker mar the view through an often optically distorted windshield. More seriously, many cars become uncontrollable when they encounter a soft shoulder. The remedy for this has been known for decades, and it doesn't cost anything, being a matter of geometry. This modification, which many front-wheel cars do have, is called negative scrub ratio. Yet



Some cars get wheel wobble when they drive on the soft shoulder – the wheel is slowed and deflected outward. This happens because the steering axis *A* is inboard of the wheel centerline *B*. This can be corrected. If the imaginary line drawn through the steering axis intersects the centerline of the wheel at the road surface, the car will drive in a straight line.

millions of cars are made every year with this potential for disaster built in. How can this happen?

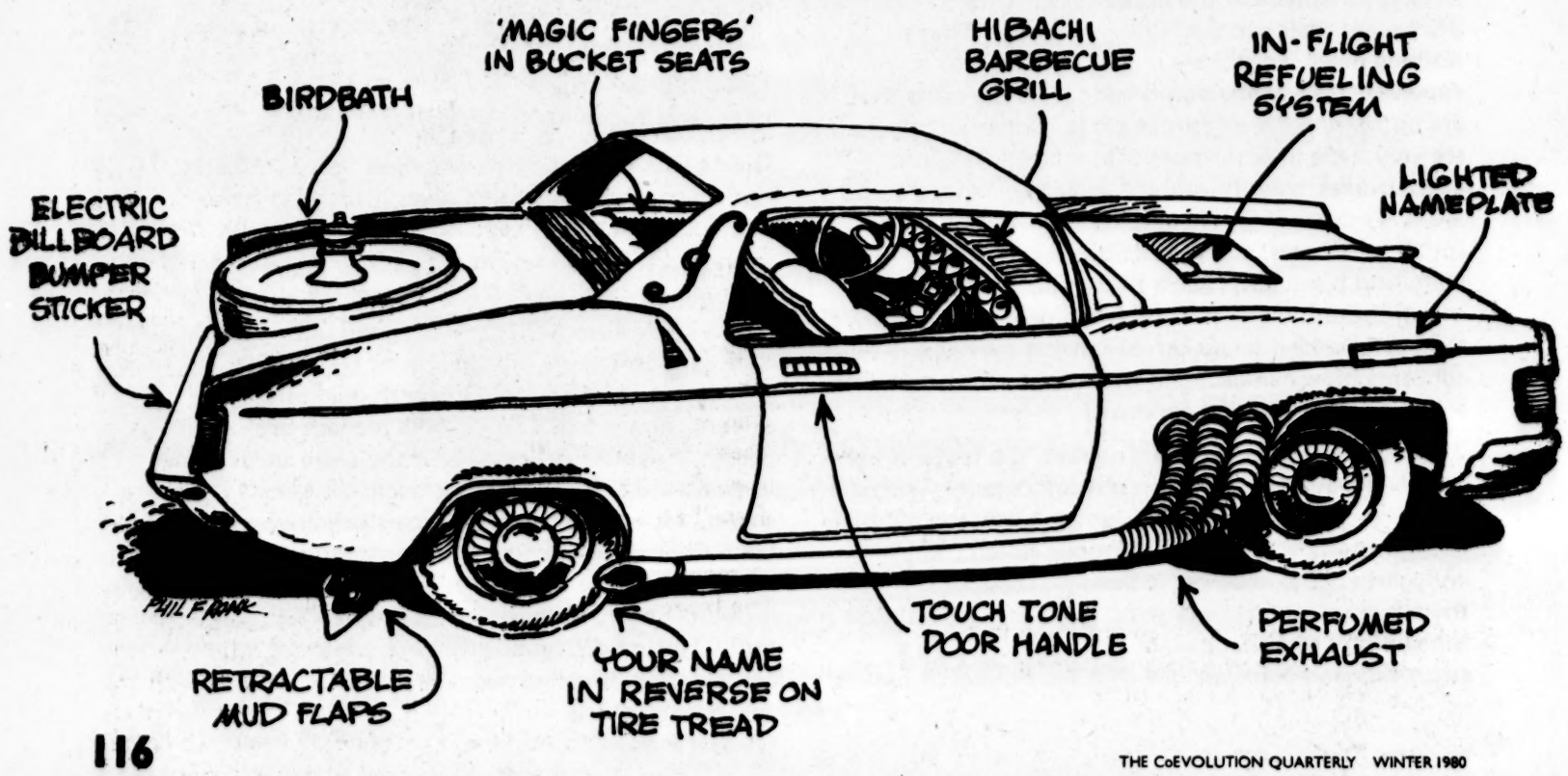
One reason is that cars are designed by several teams that may not have similar goals. The people designing steering systems don't talk to safety engineers. The result is steering mechanisms that can spear the driver in a crash. The autological answer to this problem has been to add on an expensive complex "feature" – the collapsing steering column – and only after being forced to by legislation. By contrast, many European cars do not need a collapsing column because the steering engineers had safety in mind from the beginning and thus designed systems that didn't have parts that threaten the driver in the first place.

Even when Detroit designers are trying to do their best, years of autologic paralyze clear thought. Consider the Jeep as a supposed all-terrain vehicle. In concept a Jeep is but a small conventional pickup with the front axle driven. It clears the ground by the same distance as a Buick, though it *appears* to be up there out of harm's way. It sinks in mud and doesn't float in water. The belly is a tangled mess of parts that catch on things which mire the vehicle. Vital parts are exposed to damage from stones, and critical components are very difficult to repair in the field. The Jeep's length is less than half loadspace, and it is inordinately heavy at no gain in strength. It is easily overturned. Not a very good show! They don't last long either. Similar ineptitude may be found in the design of tacked-on smog equipment and sadly (some say criminally) ineffective safety hardware.

The lifespan of a vehicle is another autological fact of life that we have come to accept without much question. We've been trained to agree that a car lasts about 100,000 miles. This is not a law of nature, but is carefully engineered. The subject of planned obsolescence here rears its ugly head. The 100,000 mile lifespan is arbitrary, and the *manner* in which the car deteriorates is purposefully chosen as well. On most cars such things as seats, door latches and window mechanisms are designed to live just until the payments are finished. The engine and transmission are better because if they failed early, you'd never buy another of that brand. But a tacky interior is shameful when transporting friends, and is a considerable incentive to buy a new car. Many new cars have styling details made from plastic that is eaten by sunlight, resulting in a tacky exterior as well. Time for a new one! In this day of concern for resource depletion, such an attitude is no longer appropriate, but in an industry with a captive market (our country has been built in a way that requires a car in most circumstances) changing that attitude may mean even more legislation or other coercive action. A voluntary change seems unlikely.

Beyond the Model T?

Unfortunately, the problem goes far beyond the auto industry. It is my opinion as a designer that autologic has invaded all but a few enterprises and is actually taught, by implication, in our universities. In times of cheap energy, the only recognized standard of performance is market performance. Catering to the demands of the consumer is what I call a political matter – that is, the constraints are largely a question of psychology. Market psychology is not "natural," as the buying public is manipulated by advertising aimed at maintaining the necessary mass demand for the product that *must* be mass-produced in order to remain affordable to Mr. & Mrs. Front Porch. In effect, the public is told what it desires – mostly the unimportant sales



features (as has already been pointed out). Until recently such desires were easily satisfied. But when energy efficiency is a factor, there are different masters to satisfy: physical laws and the realities of resource supply. A primary concern with physical law *does* make a difference in the quality of design. Compare the auto and the airplane. As inventions they are about the same age, but look at the difference in the state of their development! The most modern Ford is conceptually only a Model T with a fatter body and detail improvements, while latest Boeing is a far cry from the Wright brothers' flyer. Airplanes must first and foremost fly reliably. If one fails, you can't get out and walk. Automobiles permit all manner of engineering carelessness as long as they go, stop and refrain from overturning within acceptable limits, those limits being incestuously provided by the industry itself. However, the limits of resource management, the cumulative effects of pollution, and the political effects of inefficiency are not amenable to self-regulation. The auto makers and users are in trouble at last. They are not the only ones.

Soft Minded Tech

Regrettably some of the problem industries are ones close to our hearts – the soft technologies. Wind machines are an example. They must live outdoors without much maintenance under the worst possible conditions. Ice, lightning, hail, salt air, hurricane and inattention must all be accommodated in the design. Easy maintenance (or none) is essential to long life, and long life is *not* an arbitrary figure in this case. For if the machine doesn't last long enough to at least pay for itself, it isn't worth buying in the first place. And, more important, if the machine doesn't last long enough to make or save more energy than was used to make *it*, then it is in effect one more fossil fuel device. Yet I see all too many machines on the market with aluminum parts fastened with steel rivets, a practice sure to cause early failure from galvanic corrosion. I see machines that must be taken down from the pole for the most simple service. I talk to the president of a (still respected) wind turbine company and he tells me that their machine must be completely dismantled every two years to replace the many swivel joints which are totally unprotected from weather and are undersized to begin with! I note with alarm the popular Windcharger with its governor mechanism built without bushings, so that the bolts soon wear egg-shaped holes and the speed regulation deteriorates to disaster. Bushings would have added at most $25 to the retail cost of that $600 product.

In fairness, there are some well-designed wind turbines, but not many, and there is a deplorable tendency to design machines that have high output in high winds, a condition that is uncommon. The big numbers look good in a brochure though, especially to a public used to reading biggest-is-best in auto advertising. There is also very little research visible (and even fewer results) concerning the design of efficient devices that *use* the wind power, despite the obvious benefits to be gained by systemic design. There are a lot of disillusioned wind machine purchasers out there if my mail bag is any indication. Apparently many wind machine manufacturers are using the public as a test program, another Detroit tactic. This practice is giving a fledgling industry a bad name it can ill afford, for its market is not captive.

The same can be said for solar energy devices and architectural schemes. A shocking number of solar collectors are made in a way that is ignorantly, and sometimes deliberately, intended to require expensive repair or replacement before the device has paid for itself either in money or energy. Even reputable firms are shy about warranties extending into the payback period. Just as there has been little work done to reduce the need for electricity and consequently the need for electricity-making equipment, there has not been much done to reduce the need for solar collectors and the like. People seem to desire "things." A passive solar home that doesn't sport visible hardware on the roof because the house itself has been designed to collect solar heat is somehow not as appealing to an uneducated buyer. The principal passive work has thus been done by non-industrial builders and experimenters whose product is an idea, rather than something that comes in a box. We might expect resistance to passive houses in many subtle forms, even overt disparagement from industry and a government that has been lobbied upon, and this has been the case. I have attended government sponsored "solar workshops" in which passive designs were openly derided as impractical when there were at least 50 successful passive homes operating within a half hour drive of the lecture hall!

It's easy to see autologic in household appliances, but the house itself is harder to analyze. Regrettably, the houses many of us call "nice," as well as tract homes, apartments and mobile homes, are energy pigs too. I call them "Buick Houses," referring to Buick's long tradition of "giving you a lotta car for the money." It's hard to think about your house, isn't it? Have you ever thought that a separate bedroom might be silly for your needs? It sits there eating energy and mortgage payments but is only used one third of the time. The rest of the day IT sleeps. Is your house a showplace of your belongings and mementos; a museum? The trend towards fake period furniture (molded from highly dangerous urethane foam) gives the illusion of expensive pieces, but it's not the real thing. Autologic has photographs of wood glued to the dashboard in a Chevy, and in a $20,000 Cadillac, you get *more* fake wood instead of the real thing – never mind the inappropriateness of wood in a car in the first place. A visit to northern Europe would show you highly satisfactory homes for a family of four, maybe 600 square feet! That's practically a closet by U.S. standards. Being big and showy is becoming expensive to run in a home just as it is in a car. Attempts to render a huge house environmentally acceptable by adding a solar hot water heater and insulation are rather like retrofitting a Buick with a Briggs & Stratton. You may save some fuel, but the real problems are still there. It's time we rewarded designs that are less wasteful. More with less. I like Bucky Fuller's term "ephemeralization."

A more insidious product of autologic may be seen in the bicycle business. Bicycles make a lot of sense as

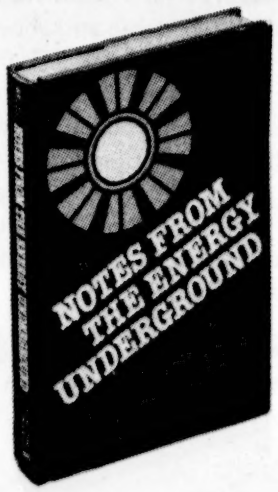
soft-tech. A person on a bike represents the most efficient means of transport known, exceeding even such natural systems as a running deer! The average auto trip is less than 10 miles at an average speed of less than 15 mph, with a load statistically less than 2 people. That's bike talk. Then why are there not more bikes used for commuting and other chores? Yes there are questions of weather and safety. The weather we can't help, but the safety questions arise from two sources. First is that bikes are not accorded public funds to accommodate their needs. "Cars first" is another example of autologic. Second is that the bikes themselves are not very well designed for everyday use. The typical ten speed, the most common type, is ill-suited to conditions met every day. It's fragile, easily stolen, difficult to store, park, and take on public transport. Its vital parts are heartlessly exposed to the elements, and many parts are made from materials that cannot withstand the assault of something so common as sunlight! Tires are easily popped by running over seeds and the inevitable glass crumbs. The lack of suspension is not only uncomfortable, but is unsafe on the rough edges of the road where bikes are most often used. Brakes don't work in the wet. All in all not a means of everyday transport for someone who might be dismissed for being late! The ten speed is unsuitable largely because it is a weak imitation of a racing machine instead of being a strong statement of utility. The auto equivalents of the ten speed, the pseudoracers like Camaro and Mustang, are among the least useful cars. The thinking behind all these is the same. Sell dreams instead of elegant, useful, economical transport. Such things need not be dowdy either. The idea that workday transport has to be crude and ugly is also autologic intended to encourage the sales of luxury models. There was a time when selling of illusions made good market sense even if it didn't mean a high degree of usefulness. But now that the energy and resource crunch is upon us, such frittermindedness is not only folly, it isn't even good business.

So what do we do about it? Well, it looks as if the American public is beginning to see what's going on, if only just a glimpse. Fat cars are not selling. Sales of insulation are booming. As a start, I think banks should only give loans on solar houses; in 20 years, fossil-fueled housing may not be worth very much as collateral! Specification building codes should give way to performance codes. $5-a-gallon gasoline would do more for auto design than any number of government regulations. These are easily made changes – merely paperwork, but they could have a great impact. Those of us who know about net energy must be really tough when we propose another piece of hardware, regardless of the righteousness of the concept. We have to think in terms of whole systems instead of components. We must encourage people to look at life cycle costs of technology, both economic and energetic, and we should pressure lending institutions to take this into account. But most of all we should look into our own minds to see how much of what we consider "reasonable" actually is so. The best antidote to autologic is to make everything you do a demonstration of clear thought. ■

Notes from the Energy Underground

Malcolm Wells surfaces again to bring us a collection of essays by a variety of authors in the field. Among those heard from are Isaac Asimov, John Todd, Russell Baker, William Shurcliff, and me, but most of the essays are by Malcolm. The content ranges from send-up to vicious, with Emperor's New Clothes being especially well attended. The effect is to encourage unfettered thought about energy matters. —*J. Baldwin*

Notes from the Energy Underground
Malcolm Wells, Editor
1980; 162 pp.
$10.95 postpaid from:
Van Nostrand
Reinhold Company
Order Department
7625 Empire Drive
Florence, KY 41042
or Whole Earth
Household Store



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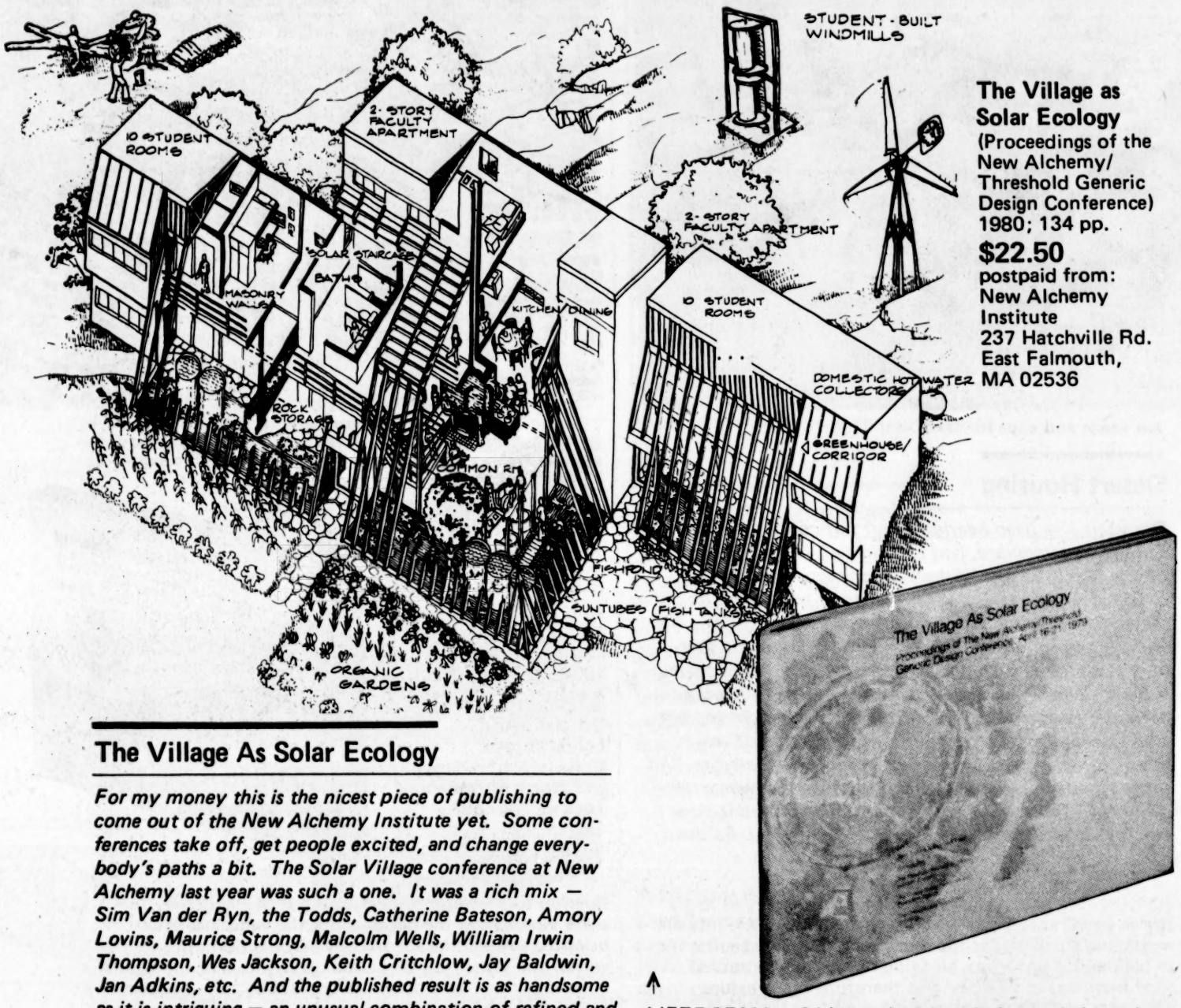
"Good afternoon, ladies and gentlemen, this is the captain speaking. At the present moment we're passing directly over Bismarck, North Dakota, and those of you sitting on the right side of the cabin should be able to see the Missouri River in a moment or two. We're flying at an altitude of 42,000 feet, the outside temperature is a brisk 37 degrees below zero, and the weather is clear, with a visibility of 25 miles."

I send a note to the captain every time I fly. Here's what it usually says: "Sir, Why do you call the sky 'clear' when the horizon is totally obscured by smoke? Isn't clean air transparent? Shouldn't we be able to see every detail of the landscape for hundreds of miles from this altitude? Don't you ever want to cry for help against the shiny metal airplane that's going to come roaring out of this glurk one of these days and sprinkle little bits of us all over North Dakota? Don't you know that most of us, back here, think we're looking at a natural atmospheric condition when we see all that smoke outside?"

And here's what usually gets handed back to me: "Dear Mr. Wells, Thanks very much for your interesting comments. The safety measures aboard these aircraft make horizon-visibility unnecessary. You can be sure that we in the industry are doing everything possible to make your trip safe and pleasant."

What fun it is to ride and sing a slaying song tonight.
—Malcolm Wells



The Village as Solar Ecology
(Proceedings of the New Alchemy/ Threshold Generic Design Conference)
1980; 134 pp.
$22.50
postpaid from:
New Alchemy Institute
237 Hatchville Rd.
East Falmouth, MA 02536

The Village As Solar Ecology

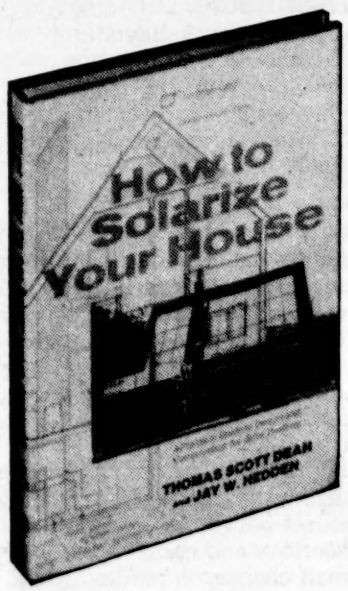
For my money this is the nicest piece of publishing to come out of the New Alchemy Institute yet. Some conferences take off, get people excited, and change everybody's paths a bit. The Solar Village conference at New Alchemy last year was such a one. It was a rich mix — Sim Van der Ryn, the Todds, Catherine Bateson, Amory Lovins, Maurice Strong, Malcolm Wells, William Irwin Thompson, Wes Jackson, Keith Critchlow, Jay Baldwin, Jan Adkins, etc. And the published result is as handsome as it is intriguing — an unusual combination of refined and germinal. As Catherine Bateson put it, "We are talking about breathing new life into what we mean when we say that we live in a given place." —Stewart Brand

LIFEDORM is a 24-hour classroom in humanistic ecology. In the process of harvesting food and energy the students and faculty will also attempt to create fulfilling human relationships.

How to Solarize Your House

If you're thinking of an "active" solar space and water heating system for a new or old house, start here. The experience from 25 successful installations is presented as proven procedure. It's the sort of thing that has been needed for a long time. It's finely detailed information, right down to brand names and model numbers. This one should be in paperback too: it's a shame to see workbooks only available in deluxe versions. —J. Baldwin

How to Solarize Your House
(A Practical Guide to Design and Construction for Solar Heating)
Thomas Scott Dean and Jay W. Hedden
1980; 162 pp.
$20 postpaid from:
Charles Scribners Sons
Vreeland Avenue
Totowa, NJ 07512
or Whole Earth Household Store

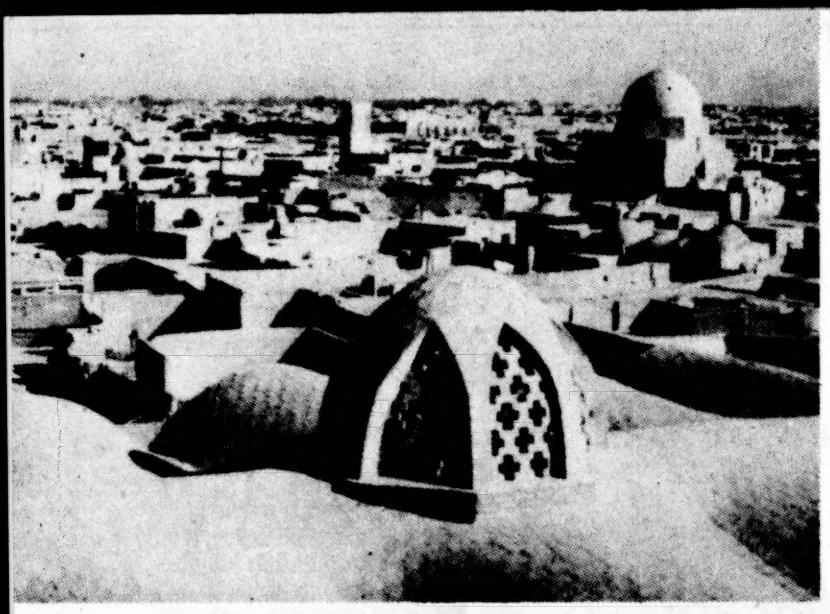


Heliophase

When somebody asks me, "What's the best solar water heater?" I tend to suddenly get called out of town. It's too difficult to compare them, especially in quality and performance as-installed. But it IS possible to base an opinion on principle, and one can also speak from experience.

The Heliophase is certainly a good design. It has no pumps, controls, or the accursed electric valves. It can't freeze or overheat, doesn't threaten you with possible toxic leaks, and will not corrode itself into oblivion. And, I can personally vouch that it works, and works better than any other solar hot water heater I've ever seen. (I've lived with it 6 months.) Some people will be dismayed by the fluid used — Freon 114 — but it doesn't use much and what it does use is sealed in much more reliably than, say an auto air conditioner or a spray can. It'll even heat water at night if the air temperature is greater than the water! Use the address nearest you, because the heaters are designed slightly differently for East and West coast climates. —J. Baldwin

Heliophase Solar Hot Water Heaters
$3300 - $4700
(approx.)
Information **free** from:
Aptec Corporation
939 Boylston Street
Boston, MA 02115
or
1637 Pontius Avenue
Los Angeles, CA 90025



Air vents and caps in Yazd, Iran

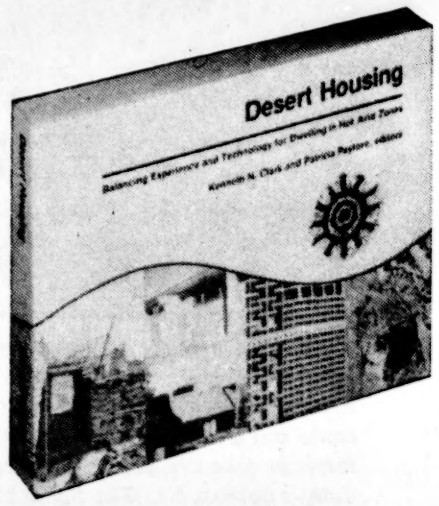
The courtyard houses in Yazd have numerous common walls, an arrangement which reduces the total exposed surface area and hence the total solar energy received by each house.

Desert Housing

*For years I've been hearing about self-cooling houses in Turkey or someplace, and once in awhile I see a picture of one (***Architecture Without Architects, Next WEC,** *p. 211, for instance), but never a good treatise on how it all works and what sizes things are to make it work. Now with this comprehensive book I can while away a few weeks' worth of evenings getting a real education on the subject. The first chapters deal with theory (including political) later chapters analyze everything from ancient traditional to modern portable housing for outback mining towns in Australia. The book is dedicated to "All those who live in the desert and to those few who understand it." Those of us who hope to understand it now have some good help.* —J. Baldwin

Desert Housing
(Balancing Experience and Technology for Dwelling in Hot Arid Zones)
Kenneth N. Clark and Patricia Paylore, Editors
1980; 339 pp.

$15 postpaid from:
Office of Arid Lands Studies
University of Arizona
845 North Park Avenue
Tucson, AZ 85719



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Air vents are used in conjunction with the curved roofs for an even more efficient cooling system. The vents are made in a small cap at the top of the dome or vaults. As explained by Bahadori, air which flows over a curved roof increases in velocity and therefore the pressure decreases at the top where the cap and air vents are located. The decrease in pressure causes the air inside to flow up to the vents, drawing air out of the dome. In areas which have the barrel vault, the vents also are oriented toward the constant wind direction. In the winter the vents may be closed up to preserve any warm air and prevent cold downdrafts, although the seasonal usage of the house includes moving in winter into rooms which do not have these vents.

Mongolian Cloud Houses

Coming to us just too late for inclusion in the **Next WEC** *yurt department (p. 239), this sensitive, friendly book is the first I've seen that really does the subject justice. The author is a good directions writer, a skill that is not as easy as one might think. He also gently helps you build the proper spirit for the task, yet retains a commendable realism about it all — something often lacking in enterprises of this sort. And I think it might be nice to sit with Mr. Kuehn over a pot of yak stew and see what else he knows. There's a lot more here than sewing directions.* —J. Baldwin

Mongolian Cloud Houses
(How to Make a Yurt and Live Comfortably)
Dan Kuehn
1980; 135 pp.

$7 postpaid from:
Cloud Houses
P.O. Box 2315
Taos, NM 87571

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Bending the Latticework Poles

To bend the poles, you'll need a hot fire, a stream or a big basin of cold water, and you should draw a nine-foot section of a circle with an eight-foot radius on the ground as a guide for bending the first pole.

Heat a three-foot section at a time (leave cool places for your hands), turning the pole constantly so that it doesn't burn (1). Then, using your thumbs as levers, gently bend the pole (2) and immerse it in the water (3). This will temper the bend. Then do another three-foot section. As you go, compare the curve with the one you drew on the ground, copying it as best you can. Once you have one pole right, use it as a standard for the others.

The Double Shell Solar House

If you'll excuse the expression, this book adds fuel to the already heated arguments (sorry, I can't help it) surrounding the double-shell design. Here, several designers, builders and owners discuss actual field experience with five real houses. Theory, drawings and photographs accompany the lively talk. I greatly like this sort of thing — people learning are at their best much of the time. It's worth the money. —J. Baldwin

The Double Shell Solar House
(Community Builders' Experience with the Buffering Air Envelope)
Don Booth, Editor
1980; 115 pp.

$15 postpaid from:
Community Builders
Canterbury, NH 03224

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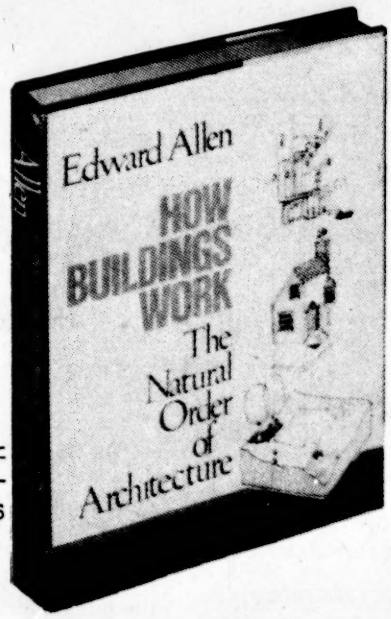
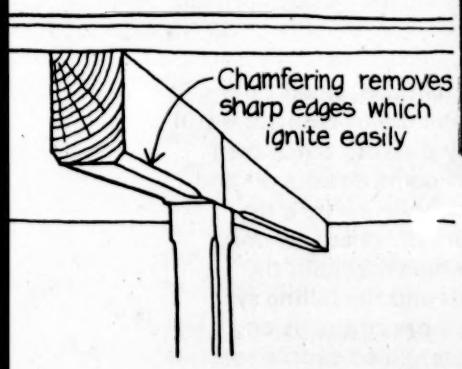
My first thought when designing an envelope house was that its main function was to gather solar energy and store it into the earth mass. After my first house I realized that wasn't really happening. Today I'm hearing figures of 20% and below of the energy hitting the glass making it down into the storage area, and that seems like an insignificant amount considering the thousands of dollars it takes to put 5 or 6 hundred square feet of glass in a building. In my belief the houses are really "geothermal" houses and not houses run by the solar energy hitting the glass on the building. They are "geothermal" houses because the mass underneath the building is tremendous and contributes huge amounts of energy with small changes in temperature. —Bill Brodhead

How Buildings Work

From now on when people ask me how & why questions about building, I'll send 'em here. I'll send me here too, for these are the clearest jargon-free explanations of building technique and practice I've seen. Heating and cooling are especially well covered – better than most solar books. Such things as expansion, sound insulation, fire control, light, and waterproofing are explained in a way that would make the information difficult to forget. You won't have to look it up again. That's the sign of a well thought out presentation; it's done so well that you can't remember not knowing. Judging by the number of boo-boos I see in modern architecture, many so-called professional architects could use a look at this too. Let's have a paperback version! —J. Baldwin

How Buildings Work
(The Natural Order of Architecture)
Edward Allen
1980; 241 pp.
$19.95 postpaid from:
Oxford University Press
1600 Pollitt Drive
Fair Lawn, NJ 07410
or Whole Earth Household Store





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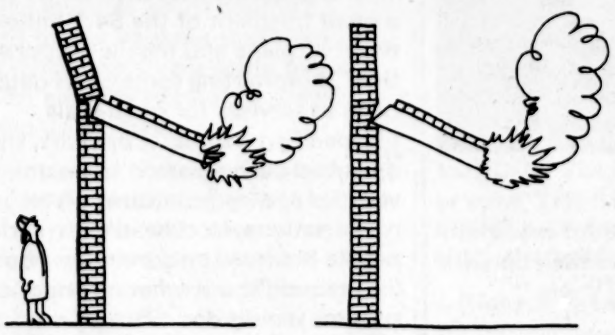
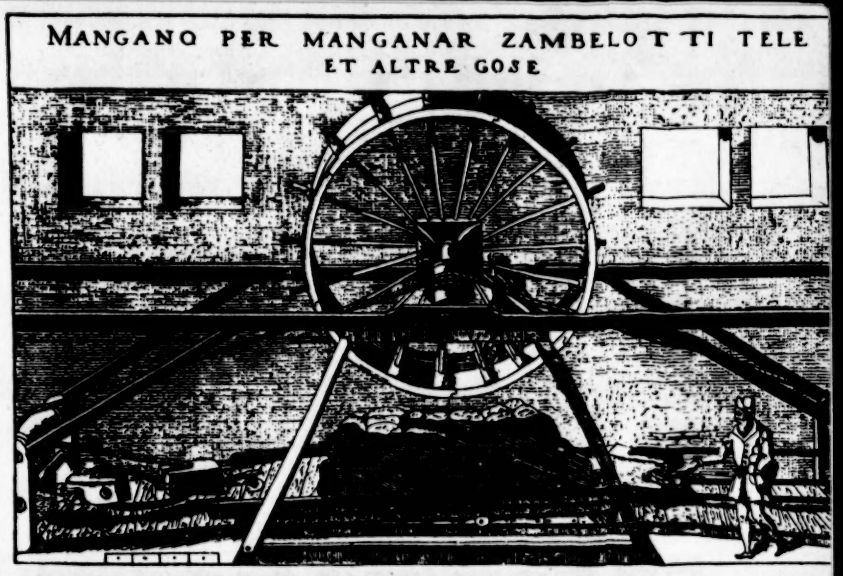
In using any of these materials, the idea is to prevent structural collapse of a building within the time that a fire will normally run its course, or at least to delay collapse in low buildings until all occupants have escaped and firefighters have had a reasonable chance to save the building. Plaster or plasterboard walls and ceilings give wooden residences roughly a half-hour of protection. Single-story industrial and commercial buildings may be built of unprotected steel, in which case they are classified as "incombustible." In a hot fire their collapse would be rapid, but very unlikely to occur before the occupants could get out through the easy escape routes. "Slow-burning" construction of chamfered timbers at least eight inches (200 mm) in minimum dimension will last considerably longer in a fire, and has lower fire-insurance costs than unprotected steel. The ends of wooden beams and joists must be *fire-cut* wherever they enter masonry walls, in order to prevent toppling of the wall should the beams eventually burn through.



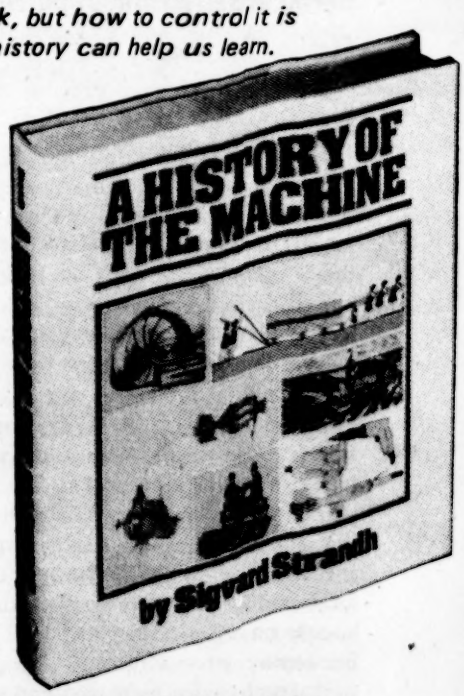


Treadmill driven mangle for pressing linen, from a Renaissance "art" (or technology) book.

A History of the Machine

The seemingly inexorable progression from handwork (and slavery) to machine is here depicted in a lavish setting with documented text and highly detailed drawings. Reading books of this sort is a good way to gain some insight into how technology has come to be what it is. The development and social effects of machine tools are especially well presented right up through recent automation and "robots." The urge to further develop machinery is easy to understand when shown in the sympathetic light of this book, but how to control it is another matter. I hope this history can help us learn. —J. Baldwin

A History of the Machine
Sigvard Strandh
1979; 240 pp.
$19.98 postpaid from:
A&W Publications
95 Madison Avenue
New York, NY 10016
or Whole Earth Household Store



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During and after the technical revolution of the Renaissance, a whole arsenal of new tools came into being, as well as methods and techniques for using them. The spirits of technology could truly awaken and find joy in designing machines. What are called "art books" first appeared, and they flourished from the sixteenth century to the middle of the eighteenth. These were magnificent pictorial books that contained descriptions of ingenious machines, both real and imaginary. In general, art books were extremely important for the spread of technology in the West, especially for mining, for they illustrated machinery for raising water, and other devices described by Agricola and Biringuccio, among others. The chief engineers, or art masters, of the mines took ideas from the art books, copying the designs or modifying them to suit themselves. This meant that heavy mechanical equipment and the tools used were largely similar in the different European mines, and in the same way, the tools and equipment of all the other crafts soon acquired similar forms all over Europe. Any kind of technical novelty quickly spread via the art books; one example of this is the mangle. The Italian Vittorio Zonca (1580? – ?) gave one of the first descriptions of such a machine in his art book **Novo teatro di machine et edificii**, (Padua, 1607). He even presented two versions of it, one an impressive mangle, over 30 ft (c. 9 m) long and driven by two men in a treadmill; the other was driven by a horse capstan.

Information Detective Stories

Computer Based Data Bases and Their Users

by Art Kleiner

Computer Information Systems are remote landscapes of reference material stored in computer files. They were developed haphazardly during the last decade and used mostly by corporations, lawyers and the medical establishment. They've recently evolved into tools for individuals, small businesses and political groups; they equalize the balance of power between those who can afford reference libraries of their own and those who can't. And the job of searching through their depths for the right answer has become a great new entrepreneurial opportunity for the army of unemployed English majors left over from the baby boom.

I'd been personally curious about on-line information systems since I was a college student, when some of my wealthier acquaintances short-cut their term paper research by doing computer searches at the university library. What appealed to me most was an image of scattered streams of reference information, not really related to each other except through the strange twists of a machine's logic, like the serendipity of wandering at random through remote library stacks. As a journalism student I once spent three hours looking for a simple background book on "computers" in the Berkeley university card catalog, wishing frantically that I had the $50 or so to spend on a search. But it still seemed like an academic service, of no more use in the working world than Cliff's Notes.

Then I met Tom Howard, a Bay Area writer and occasional political activist who had worked as a searcher for a Berkeley firm called Information on Demand. He, too, was chagrined that he could not afford his own searches – because some of the political groups he was working with could have used them.

"The social benefits could be enormous," he said. "Groups dealing with environmental issues could research the effects of land use policies; tenants' organizations could find legal precedents against red-lining. There's a tiny library at UC which covers that subject – not the kind of thing that a low budget group could even find easily, let alone use.

"I was active in utility rate reform in Illinois. It would have been terrific to have access to studies of utility costs and expenses. Typically, this stuff isn't in books – it's in reports which were written for some obscure agency. You wouldn't know about them unless you had found their reference through someone like me."

Lancelot, the goat/unicorn
RON KIMBALL, SF CHRONICLE/EXAMINER

"One time we searched for material on hydraulic rams and ended up with a reference to watering goats."

–Gary Kaplan, author of **Information Brokering**

A year and a half ago, when Tom said this, the general use of data bases still seemed pretty distant. Since then the costs have come down a bit and the usefulness has gone up a lot. There are more data base vendors (companies which maintain the computer files and the billing systems), hence more competition. There are more skilled people to search them, including a growing number of public librarians who can often do it cheaply. There's more widespread use of home computers and home terminals, both usable for searching data bases. There's more information on-line about subjects like soft technology and alternative news. And, faced with possible competition from computer networks (see the **Next WEC**, p. 534) and even from the phone company, the data base companies seem to be starting to set themselves up as vendors of information for the general public.

For instance, Lockheed's DIALOG (the largest data base distributor but a small fragment of the $4.1 billion dollar airplane and missile corporation) is promoting some of its data bases as services for small-scale, independent people. For years, the users had been assumed to be universities and corporations. In recent conversations, Lockheed's marketing people betrayed an admirably populist attitude about what information systems should do. "One of my favorite information systems is the

← View of landscape from Ox Drove, Bower Chalke towards Bokerly Ditch, Pentridge, Dorset, England.
DAVID WILLS

While researching this article I put an inquiry on the Electronic Information Exchange System (EIES) computer network and received this reply.
—Art Kleiner

Dear Art,

Peter and Trudy Johnson-Lenz sent me your query about data base searching. I have been doing it since '73. I am a research librarian. The two major reactions I had were 1) immense relief at being able to coordinate two or more subject headings, thus shortening the researching time; and 2) heady excitement about being able to retrieve so much more information than ever before. The primary negative feeling I had and still have is about the cost. While librarians have traditionally tried to keep public access free, most librarians have never been naive about the real cost of information. In some ways, the cost of data base searching helps librarians prove to folks that information is not cheap.

There's tension over who should search. Librarians have looked at searching as a way to enhance the profession, which it does. Librarians, in the past, have helped patrons find and use indices, and the patrons proceeded to do their own literature searches. Now librarians are searching these indices for the patrons online. A different responsibility than before. Librarians are now members of a research team as well as keepers of the collection and teachers of research skills.

Librarians have deep philosophical feelings about the language used to describe the information, and the standardization of that language. Since librarians think so much about language, I think it's best to have a librarian searcher do computer searches, unless a requestor has had his/her consciousness raised about "permutations and combinations of language" in his/her subject query field.

As for overload, most searchers become overloaded because patrons/requestors/friends/bosses don't realize how intensely intellectual the act of searching is, and thus tend to be pushing, uncommunicative, and cheap about the service they wish provided for themselves. The response of searchers is to become frosty and cool, thus fulfilling the stereotypical role expectations of librarians. Voila.

Great searches are happening every day. For each person, the finding of the perfect citation is a great search. I suppose overcoming the terror of the terminal and the tension about cost are the first things to do. Next is learning the file structure and unique language of the data bases important to you. Certainly, the first things, the terror and the tension, will cause serious study of the files, which is the same process researchers have always used when they breezed into a library to do a little research. They have realized that it was going to take a whole lot longer than they had planned and either they didn't do good research or they buckled down and figured out the system.

Sincerely,

Leslie Wykoff
Health Services Research Center
Kaiser-Permanente
Medical Care Program
Portland, Oregon

reference phone number at the Berkeley Public Library," said marketing staff member Barbara Gersh. "I'd be in a bar with friends, and we'd get into arguments, and we'd call them at midnight to find out, 'No, Clark Gable *wasn't* in that movie . . .' "

But a general-use computer system with that kind of information on tap is still pretty much a dream. It's easiest to visualize what data bases are like now by looking where they came from: those huge, specialized periodical reference books in the research room of the library. Books like **Chemical Abstracts, The Social Science Citation Index**, the **Pharmaceutical News Index**, and the **United States Public School Directory**. In the late sixties, when the firms that publish these reference books began to use computerized typesetting to update the volumes yearly, they realized they had a tremendous resource already typed up. If they made their tapes available through faraway computer terminals, smaller libraries which couldn't afford to buy volumes that were only used once a year could pay a smaller amount every time they looked up a reference.

To people like myself, who are interested in the random byways of information for their own sakes, the fascinating part of data bases is their strange, arbitrary range. There are data bases devoted entirely to the manufacture of pumps, peace research, foundation grants, doing business with eastern Europe, human factors in man-machine systems, occupations in Wisconsin, railway equipment, and everything medical and legal you can think of (including a whole series of data bases on aspects of Italian jurisprudence). More recently, newspapers like the **Washington Post** and the New York **Times** have indexed their reporters' computer files, including stories that were cut for lack of space and didn't make it into the newspapers.

Copra factory yard, East Point, Diego Garcia

"The real breakthrough in data bases will come when systems can be produced to understand natural language. So you'll be able to type in 'Give me the weather on Diego Garcia,' and the system will respond, DO YOU MEAN THE BOAT OR THE ISLAND? Or you could type in in, 'Tell me if anything has happened in Iran since noon.' The system would compare all the stories, find a new sentence on one of the wire services, and report, THERE IS A NEW SENTENCE WHERE THE LONDON TELEGRAPH SAYS . . . or even, THERE IS A NEW SENTENCE BUT IT'S NOTHING NEW."

—Richard Solomon, professor at MIT's Communications Policy Research Department

Also, American Telephone and Telegraph is experimenting with turning the phone book into a data base and issuing home terminals with which people can use it. So far, they've experimented with about 90 families in Albany, New York and an equal number in Houston, Texas — allowing people to type in a name and have an address and phone number print out instead of using a phone book or directory assistance, as well as setting up classified files along the line of the Yellow Pages.

The logic of defining a search for a particular item has evolved a lot during the past ten years. Merely assigning keywords or codes to each item didn't always work, because people didn't always use the same words to refer to the same topic. Some data bases adopted vocabulary lists of specialized words or codes; others tried to arrange themselves so that any word printed in a story could be found, instead of just the words in a title or abstract paragraph. In both cases, the best way of narrowing complex topics turned out to be a logic system based on the ANDs, ORs and NOTs of Boolean algebra.

For instance: suppose you wanted to learn about attitudes towards hiring the handicapped outside the United States. You'd write a search

strategy based on a formula like this: (JOBS or HIRING) and (HANDICAPPED or DISABLED) and (ATTITUDES) but not (UNITED STATES). For each combination of words, the system would tell you the number of pertinent articles in the data bank. You'd vary the formula until you produced a manageable number of references, perhaps twelve, and then ask for a list of titles. If none of the titles seemed promising, you'd start over with a different formula. If some of them did, you'd ask for abstracts of the most interesting looking articles. Often a promising but not perfect reference would suggest other keywords which would in turn provide a slightly different slant in the formula but produce completely different results in the articles.

"I was doing a search on strip mining, Tom Howard said. "I found only two or three items. But I accidentally noticed that they were all indexed under 'surface mining,' so I typed *that* in and found out there were long lists of references. It turns out that in the technical literature it isn't usually known as strip mining."

To complicate things more, each computer information system uses a different set of codes, and often a different vocabulary or logical structure. Since nearly every system bills by the minute, searchers don't get much time to play around or experiment on-line.

Hence, watching a skilled computer searcher is a lot like watching a skilled pinball player. They tense up before they jump in; they react to the machine, pleading and muttering threats, snapping in and rescinding commands at each newly-discovered logical twist of the system. Barbara Newlin, who searches data bases for Information on Demand, said, "A good searcher has to keep at it every day for a long time. You have to spend money on seminars, search aids, thesauri. An encyclopedic memory doesn't hurt. Beyond that, you have to have a certain amount of innate cunning."

Using data bases

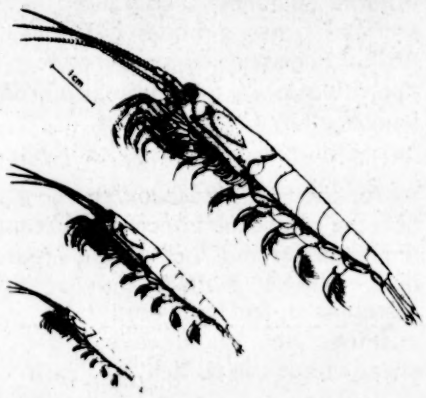
The temptation may be great to borrow a terminal and jump in yourself, but unless you're willing to devote much time and money to searching for its own sake, it's cheaper and more reliable to get someone skilled to do it for you. Here are some situations where a data base search is worth considering:

Patent and trade name searches

The U.S. Patent Office keeps a data base file which is usually the best alternative to a trip to Washington, D.C.

"A guy came up to me at a show, wanting to find out about a high-protein shellfish called Antarctic krill as a possible food source. The problem is, the second the shellfish leaves the water it disintegrates. You can't take it out of the marine environment. We ran a search through a group of fisheries abstracts put out by UNESCO — they have a lot of material on-line about worldwide food production. It turns out that in Japan they're farming Antarctic krill with a boat that never takes the fish out of the water until they get it home and freeze it."

—George Plosker, marketing representative for Lockheed's DIALOG

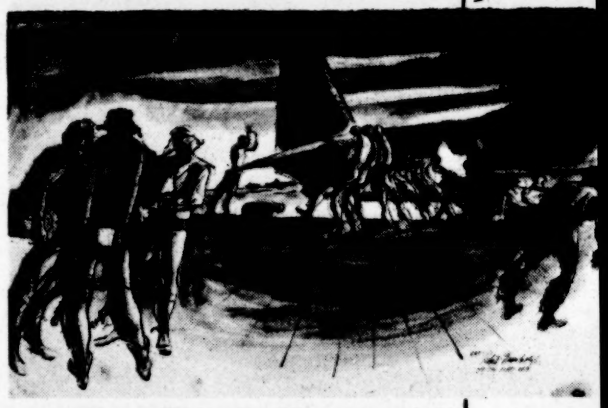


BARGMAN

Antarctic krill, Euphrasia superba

"We had a question regarding shoe friction. Our clients wanted to find shoe materials that wouldn't slip on special surfaces. It's more complicated than you might think because some shoes have slippery soles and some floors have slippery surfaces and some shoe soles are only slippery on certain kinds of floors. It didn't seem like anybody had ever cared enough to test them, until we tried a government data base and found reports on that subject from the military. They'd done research with sailors on slippery decks . . ."

—Georgia Finnegan, proprietor of the Information Store, San Francisco



WWII, JAMES JONES

Flight deck by Robert Greenhalgh

Technical research

Massive files of technical reports are kept updated by independent research groups, plus government agencies like NASA and the Department of Commerce's National Technical Information Service (see Next WEC, p. 496). Sometimes the best way to keep track of a fast-moving technical subject is just by reading article titles and abstracts without sending for the full text. There are a few excellently referenced data bases on energy and the environment: Energyline and Enviroline, updated by the Environment Information Center; EIS, which lists environmental impact statements in the U.S. going back to 1977; and SERI, produced by the Solar Energy Research Institute.

Topical research

Hefty reference volumes don't change their indexing terms with the linguistic fashions of the times. If you need to track down a term that only came into general use last year, you may need a data base to find it.

Job hunting

If you have specific expertise you can search for articles and references, and then track down the companies which sponsored the research that led to the articles and references.

Picture research

Often, a computer file will tell which articles on a particular topic are illustrated.

Probably the most useful feature of data bases is called Selective Dissemination of Information (SDI). Once you've done a search, the computer system can keep your search strategies on file as a kind of profile, and once a month you can receive any articles that have been entered that fit your profile. Unlike case-by-case searching, the cost is fairly low — usually $5 - $10 per month for your personally specified news service.

To find someone to search for you, the best starting place is your local public or university library. Ask the people who do searching how much experience they have, and what their fields of specialty are. It's worth finding someone who knows the vocabulary of your desired subject area. Most librarians can refer you to someone else if they need to. The costs usually run about $25 - $100, depending on the complexity of the search. You're paying for a data base fee of $25 - $95 per hour on-line.

For more in-depth service, try one of the private information brokers near you. In addition to data base searching, they'll also consult on other types of research work. They can be expensive — Berkeley's Information on Demand rarely charges less than $150 for a search. Since all brokers use Lockheed's DIALOG (among other services), the easiest way to find one near you is to write for Lockheed's regularly updated list.

DAVID WILLS

You don't have to be a corporation or reference book company to establish a data base. You can build a small-scale indexing system on a home computer. Dan Dugan wrote us recently that he has a home system for keeping track of articles in electronics magazines:

"I get 14 magazines right now and eat them all. For years I've been struggling with the problem of how to remember where I saw this or that article. When I got a data base management program going on my computer a few months ago I started using a system that's working like gangbusters.

"I look at each copy twice. The first pass can be done anywhere — in the house or on the bus. When I hit an article worth coming back to I turn over the corner of the page, and also turn over the corner of the front cover to show that there's something to be indexed inside. If I don't finish getting through the copy I try to leave it folded open. Mags that I have been through work their way to a pile on top of the computer desk.

"Now and then (once a week or so) when I feel like doing some interesting reading I work on this pile, flipping through from the back of each magazine. I go through the issue only looking at the articles with the folded over corners. If they're still of interest, I index the article in my data base file that is named 'REF.' I make a record of the index information for the article on the terminal screen in a form with four fields: key words, title, author (last name only), where to find it (mag, date, page). When I get through with the issue I un-fold the front cover corner and throw it on a pile that goes in the hall to be shelved.

"This routine might seem too rigorous for some souls; it suits me fine. I'm tickled to get control over the information situation in my life. When I'm looking for stuff on a subject, I open up REF and search for the subject and related key words. The program shows the index entries containing those key words on the screen and I note down the ones to go get from the shelf."

Information-on-Demand Brokers

(U.S.A. and Foreign Countries)

free from:
Lockheed DIALOG
Information Retrieval Service
Marketing Department
3460 Hillview Avenue
Palo Alto, CA 94304

There are a number of guides to the available data bases. The most highly regarded is a quarterly magazine from a consulting group called Cuadra Associates. It has good descriptions of what you can get from each service and is more accurate than any of its competitors. Even if someone else is doing your search, it's a good guide for knowing what to ask them. It's expensive, but most libraries that do searches should have copies around that you can look at.

Directory of On-line Data Bases

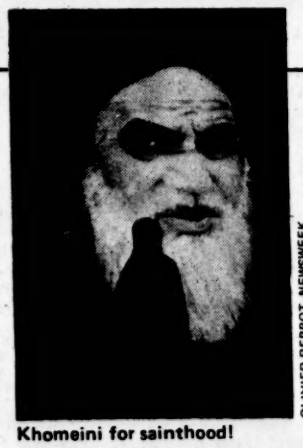
Ruth N. Landau, Judith Wanger, Mary C. Berger, Editors

$60 /year (4 issues)
from:
Cuadra Associates
1523 Sixth Street
Suite 12
Santa Monica, CA 90401

Searching as an occupation or cottage industry makes sense if you're good at reference research. It's interesting, it pays well (independent brokers charge $10 - $60 per hour plus expenses), and training and work are both available. Some information brokers are self-employed, working out of their homes on their own computer terminals. Others work at reference libraries or in information brokerages. A list of good training programs is included in **Information Market Place**, (edited by James B. Sanders, semi-annual; $32.50 post-paid from R.R. Bowker, Fulfillment Department, P.O. Box 1807, Ann Arbor, MI 48106.) It also contains listings of other information services, but since it's only updated every two years it's often inaccurate. You probably shouldn't buy it, but use it at the library.

Computer terminals for searching cost $400 - $2500 (see **Next WEC**, p. 536) or you can adapt home computers for use as terminals for an extra $200 - $400. Used terminals are often advertised in computer magazines.

Right now is a transitional time for data bases. The things that make them expensive and hard to use —



OLIVIER REBBOT, NEWSWEEK

Khomeini for sainthood!

"The hardest thing to find if you're a reporter is quotes. We have this great full-text computer file of news stories called the Mead Nexis system, and we needed to know when Andrew Young said, 'When the revolution in Iran is over the people will regard Khomeini as a saint.' It would have meant hours of rummaging through every story about Andrew Young in the morgue. On the computer we found it in 1 minute and 4 seconds."

—Ted Slate, news librarian at **Newsweek** and the Washington **Post.**

Pepperoni pizza

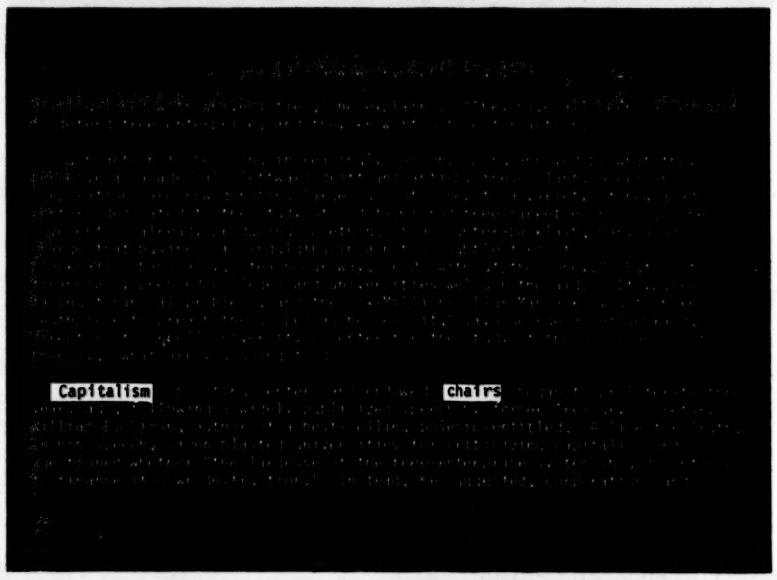
"One of our reporters was doing a story on the federal prison system, and found out it cost $4 billion to run the prisons each year. So we typed $4 billion into our data base of news stories. $4 billion was the Exxon Corporation's profit in 1979, and also the Israeli balance of payments deficit. What we used in the article was that $4 billion is how much Americans spend on pizza in a year."

—Ted Slate, news librarian at **Newsweek** and the Washington **Post.**

* NEWS

TYPE	Reference (Bibliographic)
SUBJECT	Science & Technology (Environment)
PRODUCER	WATDOC, Inland Waters Directorate, Environment Canada
ONLINE SERVICE	QL Systems, Inc.
CONTENT	Contains citations and brief summaries of news stories on water-related topics from English-language Canadian newspapers, official press releases of the Canadian federal and provincial governments, and transcripts of selected radio and television stories. Topics covered include conservation, supply, quality, pollution, flood-plain management, sewage systems, fisheries, wildlife support, and Canada-U.S. border relations. Covers stories of general interest as well as those for scientists and researchers. French-language version available in NOUVELLES *(see)*.
COVERAGE	Canada; 1971 to date.
UPDATING	About 240 records every two weeks

Where to learn about Canadian Water problems; one of the 450 data bases listed in Cuadra's Directory.



Bad news flashes on the screen as Mead Data Central's Nexis System searches for the words "capitalism" and "chairs."

high costs of transmission through phone lines, creaky indexing systems, and lack of mass audience – are changing. Some inexpensive news searching services are available through computer networks like Micronet and The Source. More expensive news systems also exist: one, Mead's Nexis (aimed at corporate lawyers and newspaper editorial rooms) is incredible to watch in action. A combination of keywords and a few typed codes instantly produce articles that flash on the Nexis screen, with paragraphs of specific interest picked out and the important words highlighted in white. Within a group of stories on a subject, you can trace a line of inquiry on a sub-topic, and the system keeps track of what level you're at.

Unfortunately, a subscription to Nexis costs something like $425 to start up, $300 per month, and $1 - $1.50 per minute of use. (By contrast, DIALOG has no start-up or monthly fee; individual data bases cost between fifty cents and $1.50 per minute, including transmission costs.) If you're still interested in Nexis, information is free from Mead Data Central, 200 Park Avenue, New York, NY 10017.

The data base field is also transitional because the people who produce the data that go into a data base are changing. For a long time, the academic research services had near-monopolies over each of their chosen subject areas. It's still difficult for a new information provider to zero in on someone else's topic, because the costs of starting a new data base are much higher than the costs of keeping up an existing one. But there are lots of gray areas between existing data bases, and lots of new needs and markets developing as people increasingly use computers to find information. There are new techniques for meshing data bases together, so that a search in one can be programmed to overlap with the information in another. A file of family incomes, for instance, can be charted on a computer-based map of population density of any part of the country.

"The thing to keep in mind," said Bill Spencer, whose firm Network Era Technologies is developing new medical data bases, "is where the information comes from. You may do a search and come out with some statistics – but even though they're on a computer, they're still the result of a study someone did five years ago, which may or may not be valid or apply to what you're doing now."

In addition, the technology linking the data bases to their users constantly changes. The current medium is computer signal transmission networks which operate over telephone lines. Tom Hargadon, who publishes the office technology newsletter **Open Systems** ($95/year for 12 issues from Open Systems, 2041 Polk Street, Suite E, San Francisco, CA 94109) recently suggested some alternatives:

"As computer chips get bigger, you'll be able to record a data base on your own personal computer memory. Storage will be cheap enough to load the information storehouse in one quick gulp, then search it on your own machine at your leisure. IBM has a large capacity chip which you could buy, which could hold a megabyte (about a million text characters) for less than a dollar. With royalties and sales costs it will probably turn out to be more like ten. There are also video discs, with 52,000 pages capacity on a disc. Using video discs and your TV screen you could get a book for less than $10 with some pretty fancy video. Whether you want to read on a TV screen is another question."

There are other visions, too – community information systems, public access computer shops and public access training programs, cable TV systems and systems that link through satellites, and systems with on-line humans to answer questions and direct you to the proper commands and information – but it's hard to tell how many of them will come about. The more interesting change is in attitudes. When people realize this much information is available, they start thinking of ways to use it. Ironically, the door to this new power is through what has often been regarded as a fairly powerless institution – the public library. ■

Bruce Male in Mini somersault at Snetterton

"A Congressman was proposing a bill to limit the use of headphones while driving. He couldn't find anything in the library that he could use to support his case. So he went to an information broker, thinking he might find something under Cars or Stereo or Headphone or Driver. The searcher redefined what he was looking for, and they found the background reports under The Importance of Auditory Signals for Decision-Making.

–Gary Kaplan, author of an introduction to the data base searching business, **Information Brokering** (A State-of-the-Art Report), 1980, 19 pp., $6 postpaid from Emerald Valley Publishing Company, 2715 Terrace View Drive, Eugene, OR 97405.

Health Hazards from Computer Terminals

Fear of eye and skin damage from cathode-ray tube (CRT) radiation is spreading in great rumor waves among the programmers, editors and clerks who have to peer into video-display terminals all day. The rumors come from experience — people get up from long bouts at the screen with blurred vision and irritated moods. In 1977, two copy editors at the **New York Times** *charged that the terminals had caused their cataracts, and four women employees at the* **Toronto Star** *recently said they suspected the CRTs had caused their children's birth defects, but the charges have yet to be proved or disproved. The dangers may also apply to personal computers, video games, and television sets if you lean closely into them for hours.*

The (incomplete) research so far indicates that terminals are probably safe in terms of microwaves and other low-level radiation — at least according to manufacturers' standards set several years ago by the National Institute for Occupational Safety and Health (NIOSH). The Environmental Protection Agency is reevaluating those standards, but no one knows when their report will be ready. If your terminals are old or have been repaired with non-standard parts, they may be producing rays of high enough voltage to leak some radiation through. You can have them tested free by calling the Compliance or Consultation Branch of your local Occupational Safety and Health Administration (OSHA). They'll usually send someone to measure the radiation directly from your screen. The man who came to measure ours when I was a typesetter said he had yet to find one that was leaking radiation.

In the meantime, there are other health hazards from CRTs — glare, noise and uncomfortable positions — which are probably the real cause for burning eyes and recurring headaches. I've also known and heard about people who had nervous breakdowns from the stress of high-pressure work plus the tyranny of the white screen. The most important prevention is frequent rest breaks. As might be expected, the groups who have pressured for clear information on this are newspaper and telephone workers' unions. A great little booklet from a New York union group covers the potential problems, and tells how to solve them. Buy one for yourself, and if you work for someone else slip a copy under your boss's door. *—Art Kleiner*

Health Protection for Operators of VDTs/ CRTs
New York Committee for Occupational Safety and Health (NYCOSH) Staff
1980; 16 pp.

$1 postpaid
($3 for institutions)
from:
NYCOSH
32 Union Square
Room 404
New York, NY 10003

●

To save money and space, many machines have small screens. In order to squeeze more information on the screen, character size is often reduced. At normal viewing distances, these small characters are difficult to read, sometimes causing eye strain, and often requiring the operator to lean forward.

The correct character size depends on viewing distance. It is better to have a large screen, a viewing distance of more than two feet, and character height of at least 3/16 of an inch. A screen which is not attached to the keyboard allows the operator to adjust the viewing distance, an important feature.

Information and Communication Technology for the Community

Disguised as a research report to an Oregon educational agency, this is really a rambling rap about computer networks, information systems, and the potentials for using them. The author, Steve Johnson, first wrote about communications technology for **RAIN** *magazine. The best parts of his report are lists of useful data bases and his diary of what happened on the networks.*

I had doubts about recommending this; it's too uncritical and technically sloppy (lots of typos, etc.). But while writing the database article for this issue I realized how many resources I first heard about here. *—Art Kleiner*

Information and Communication Technology for the Community
Steve Johnson
1980; 118 pp.

$10 postpaid from:
Center for Urban Education
0245 S.W. Bancroft
Portland, OR 97201

The Muckraker's Manual

Amateur investigation is arduous but fun, and one of the few do-it-yourself ways to effectively change the political scene. It's a shame more people don't try it. Muckraking is an accessible craft for anyone who can handle massive files of paper and long hours of interviews. There is a weird psychological split sometimes; you'll bare your soul to someone at breakfast, then expose them in print or court two months later. (On the other hand, a couple of my most valued friends started out as reporter's "sources.")

The Muckraker's Manual *is one of those exceptional books that way outclass everything else on the subject. Though signed with a pseudonym (and a bit over-priced), it's solid enough to be trusted.* *—Art Kleiner*

The Muckraker's Manual
(How to Do Your Own Investigative Reporting)
M. Harry
1980; 141 pp.

$9.95 postpaid from:
Loompanics Unlimited
P.O. Box 264
Mason, MI 48854
or Whole Earth Household Store

●

Often, you will be surprised at just who some of your friends and acquaintances *do* know. As an example, I recently finished an investigation of the networks that smuggle foreign nationals into the United States illegally to work for slave wages. I knew I wanted to make contact with two groups: smugglers and the people who "bought" the undocumented immigrants. For a person who lives a relatively quiet, middle-class existence, this possibility seemed very remote. But I did what I always do. I talked about my investigation to my friends. As it turned out, one of my friends had a brother who "bought" undocumented immigrants. Another friend had a lover who had previously lived with a smuggler. Because I had developed these "inside" sources through my extended friendship network, both of them trusted me enough to talk to me about their experiences. They also were able to give me even more leads. That's not the first time my friendship network has come in handy, but it is the most intriguing example from my own experience.

Unfortunately, this is a pool of sources that most novice investigators *never* tap. So here is *Harry's Tenth Law:* **Get your friends to help you.**

●

The conspiracy investigation can drive you to the nut-house. This warning about conspiracies has absolutely nothing to do with whether they exist or don't exist.

The deadly trap of conspiracy investigations is that one lead takes you to another until most of the world is somehow linked to the conspiracy. It's a frightening place and I would urge you to stay away from it.

Dead jogger rumor

YEARS AGO in some history class I first heard the story of a Greek athlete who'd run from Marathon to Athens with news of a great victory of the Athenians over the Persians. His name was Pheidippides and the drama of the story was accentuated by his expiration at the end of an immortal, one word message – Victory! Yeah, he just dropped dead right there in downtown Athens, history's first recorded case of a jogging OD. The event became the namesake for the Olympic marathon some 2000 years later.

When the running boom began I became better acquainted with Pheidippides, for like some patron saint of the sport he was mentioned everywhere, from **Runner's World** *exhortations to the highly researched stories in* **Time** *magazine. How could anyone avoid a story so juicy?*

One day I was in my neighborhood library and decided to find out the details of the famous event, but surprisingly, the encyclopedia didn't give old Pheidippides the space that someone who'd spawned an Olympic event deserved. Many of the entries didn't even mention him, and those that did usually used the word "apocryphal," as if this most famous drama were more in the category of fable than fact.

I decided to get to the root of the matter, so one afternoon I headed for the Stanford University library, found the Greek section and settled in for the first of many sessions. There were dozens of books to go through, and as I made the journey the story took shape. So, history buffs and runners, let me pass on what seems to be the truth about the patron saint of our sport.

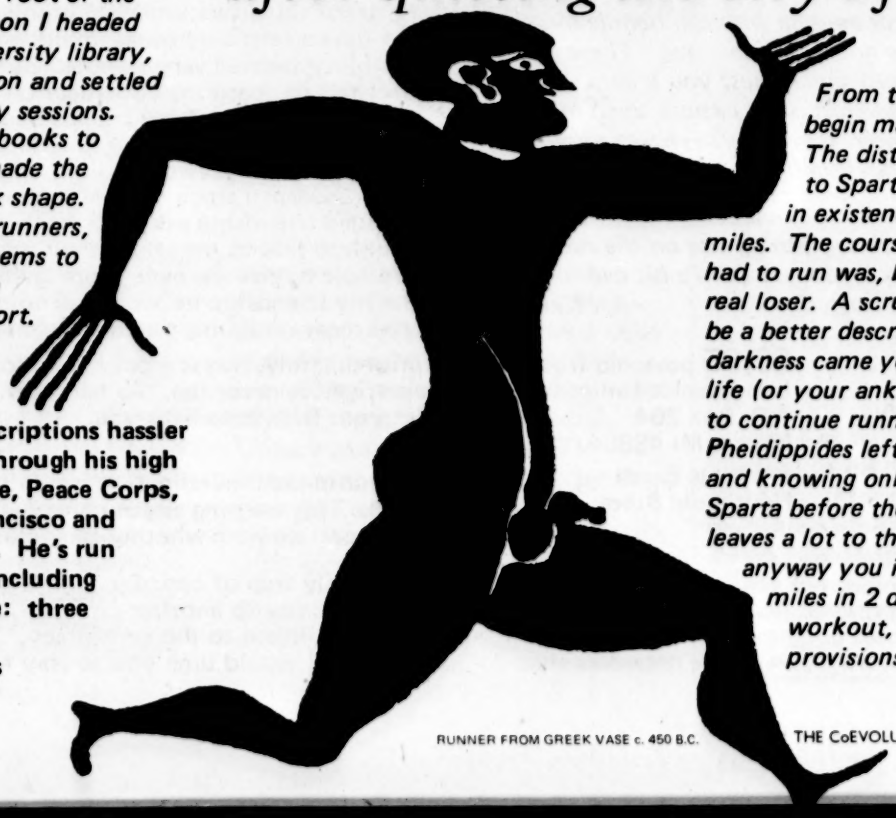
Fleet of foot and quick of wit, *CQ* subscriptions hassler Dick Fugett has run through his high school, 101st Airborne, Peace Corps, Venceremos, San Francisco and Sonoma County days. He's run eighteen marathons, including Boston. His best time: three hours, nine minutes.

—Stephanie Mills

IT BEGAN IN EARLY SEPTEMBER of the year 490 B.C. The Persians had just landed their army at the Plains of Marathon, a day's march north of Athens, with the intention of drubbing the Athenians for having taken part in an earlier rebellion. But, given the state of the art in communication and transport back in those days, battles didn't begin until days after the troops hit the beach, due to lack of an enemy. Thus the Athenians had time for preparations, and realizing that their 10,000 man army was outnumbered at least two to one, the first thing they did was go looking for allies, and that's where Pheidippides came in.

The authoritative history of the event was written by Herodotus, and we can join him here as he initially mentions Pheidippides and describes the Athenian preparation:

"... first, before they left the city, the generals sent off to Sparta a herald, one Pheidippides, who was by birth an Athenian, and by profession and practice a trained runner ... He reached Sparta on the very next day after quitting the city of Athens."



RUNNER FROM GREEK VASE c. 450 B.C.

From this passage we can begin making deductions. The distance from Athens to Sparta, by the trails then in existence, was about 140 miles. The course that Pheidippides had to run was, by our standards, a real loser. A scrubby dirt path would be a better description, and when darkness came you'd be taking your life (or your ankles) in your hands to continue running. Assuming that Pheidippides left Athens at dawn, and knowing only that he arrived in Sparta before the second nightfall leaves a lot to the imagination. But anyway you interpret it, 140 miles in 2 days is a long-haul workout, especially if he had provisions to carry. I know

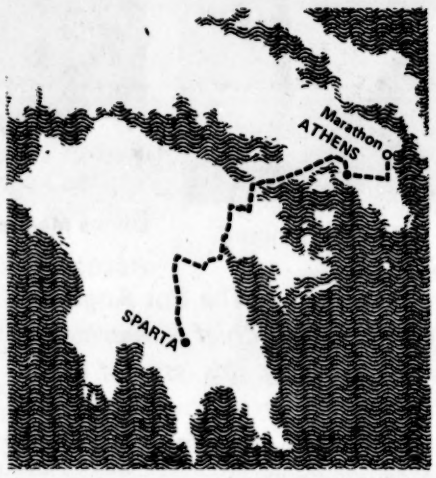
proved untrue

by Dick Fugett

for sure if I ever managed such a run I'd be destroyed, and good for nothing but the sack.

But for Pheidippides the job was only half done, he now had to give his message to the Spartan rulers, realizing that the fate of Athens might easily depend on his presentation. It was his job to help convince the Spartans to commit their troops against Persia, the mightiest power in the world.

Herodotus continues with the story, giving us a condensed version of the meeting:

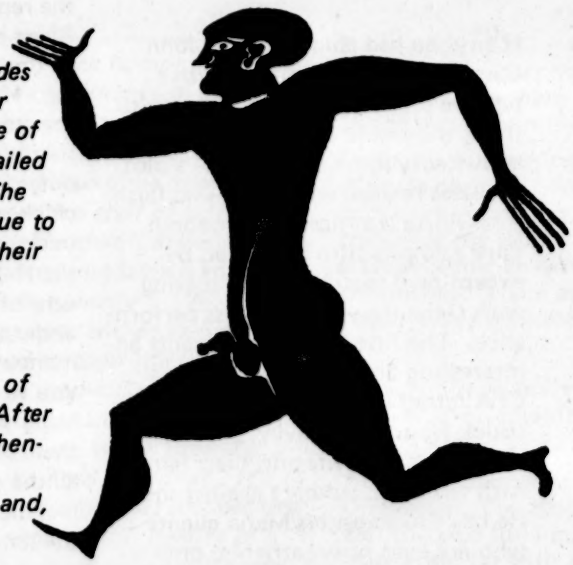


"Upon his arrival he went before the rulers, and said 'Men of Lacedaemon, the Athenians beseech you to hasten to their aid, and not allow that state, which is the most ancient in all Greece, to be enslaved by the barbarians . . .' Thus did Pheidippides deliver the message committed to him . . ."

This was no job for a common messenger, with the city's fate in the balance the Athenians could only have chosen the best man they had.

I like to think of old Pheidippides as a combination Frank Shorter and Henry Kissinger, with some of Henry's problems too, for he failed to get everything he wanted. The Spartans agreed to come, but due to what Herodotus describes as "their established law" they wouldn't march until the full moon, five days off.

So we return now to the Plains of Marathon for the conclusion. After several days of standoff the Athenians learned of the temporary absence of the Persian cavalry, and, as Herodotus tells us:



". . . charged the barbarians at a run. Now the distance between the two armies was a little short of a mile. The Persians, therefore, when they saw the Greeks coming on at speed, made ready to receive them, although it seemed to them that the Athenians were bereft of their senses, and bent upon their own destruction; for they saw a mere handful of men coming on at a run without either horsemen or archers. Such was the opinion of the barbarians; but the Athenians in close array fell upon them, and fought in a manner worthy of being recorded. They were the first of the Greeks, as far as I know, who introduced the custom of charging the enemy at a run . . ."

The Greeks, by the way, had as one event in their athletic contests a race in armor over 400 yards, macho interval work indeed, so this was yet another time when training paid off. By afternoon the Persians had been stomped and chased back to their ships to sail away.

The day after the battle the Spartans arrived in Athens; they'd marched the 140 miles in 3 days, then came the rest of the way to Marathon to see the results: 6400 Persians had died, at a cost of 192 Athenians, and the Spartan admiration for a job well done is mentioned in all the books. It was the first major victory over the Persians by the West and the results would be pivotal in history. The Spartans were not to meet the Persians until the Battle of Thermopylae ten years later, with a different outcome.

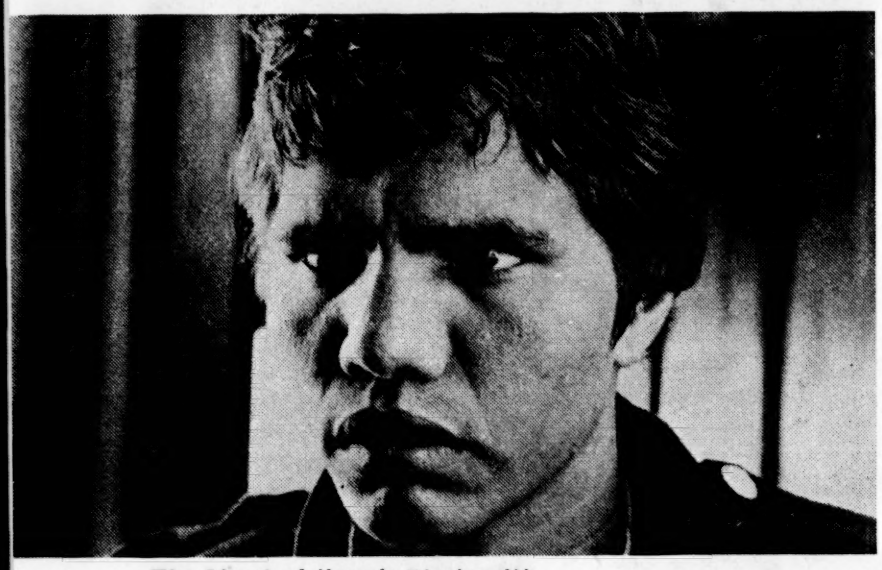
Now as for that famous, and fatal, victory run back to Athens to announce the victory. Well, there's just no mention of it in any of the authoritative literature. Other than this, by Professor Finley Hooper of Wayne State University, who says in his book **Greek Realities** *(1967):*

"A story about a young man who ran from Marathon to Athens and shouted 'Nike' (Victory) before falling dead first appeared in the literature about 600 years after the battle. This is of course the basis for the Marathon run in the Olympic Games. The story does not appear in the writings of Herodotus, however, and this argues against its truth, for Herodotus liked a good story and it is unlikely that he would have missed this one."

So that's what the history books give us. In my mind Pheidippides will never be some common runner who died at the finish line, the way I've done so many times, but rather a superb athlete with demonstrated skills in diplomacy, whose major feat remains unrecognized, and whose glory is based on myth. For him to be remembered as the guy who keeled over after a measly 23 or 26 mile run (there were 2 trails available back to Athens) is most inadequate. Colorful and dramatic maybe, but still an insult to the most famous runner in history. ■

GOOD MOVIES

by Sheila Benson



The Chant of Jimmie Blacksmith

Divine Madness

Sheila Benson has hit the really, really big time — **The Los Angeles Times** *to be exact. She's going South to be their chief film critic. The resulting excitement halved Sheila's copy for this issue of* **CQ**. *But she'll continue to review Good Movies for us, and will she ever have access to films!*
—Stephanie Mills

THE CHANT OF JIMMIE BLACKSMITH demands more from an audience than it is used to giving, but its rewards are no less enormous than those of a Greek drama: a calm, a purging, a new depth of understanding what may seem unfathomable. Australian director Fred Schepisi (the best so far of Australia's remarkable outpouring of talent) tells the true story of a half-white aborigine in the Australia of 1900, brought up by missionaries on the sort of sentiments expressed by William Blake almost 100 years earlier: "My mother bore me in the southern wild / And I am black, but O! my soul is white; / White as an angel is the English child / But I am black as if bereav'd of light."

Jimmie strives for this wretched whiteness in remote outposts of his own country, amid uneasy, penurious British settlers about to celebrate Australia's Federation. He is tricked and cheated at every turn until his kindness is used up and bile and blood-rage take its place. He marries a dim-witted white cookhouse girl, only to learn that their baby is the final cheat, a pink little Winston Churchill-faced child.

Schepisi dares everything, dares to have us turn away from Jimmie after the explosion which follows some months later, when the landowners refuse him credit for food for his family. In desperate fury, Jimmie (and his two relatives) murder five women and children, and later two more male settlers. But Schepisi has built so carefully that we can't turn away from him; instead we follow his flight and his sweet-spirited brother and see how irretrievably Jimmie is lost to both his own people and the Europeans. The ending is unsurprising, but Schepisi draws from it an apotheosis, a flight of white birds rising over the dense green bush who seem to carry Jimmie's dreams and perhaps his proudly un-white soul.

If anyone had told you that John Cassavetes could come up with a taut, relentless, cohesive film you'd think they were delusional, and admittedly some of **GLORIA**'s plot excesses require an act of blind faith. But **Gloria** is a marvelous modern fairy tale of a film bracketed by exceptional sequences and roaring with Gena Rowlands' tigress performance. The first sequence presents an interesting South Bronx family, a CPA father-turned-FBI informer (Buck Henry), his savvy, beautiful young Spanish wife and their family, with the clock running against them. He has finked on his Mafia clients who are even now gathering ominously downstairs in their apartment building. Only later do you realize that Cassavetes has exerted the most excruciating tension without one frame of graphic violence, proving — if it needed to be proved — that the most blood-curdling images live in our imagination. In the second scene, Gloria marches into the den of a Mafia chieftain she used to live with and the glimpses down the hallway of his hoods at home are worth the whole film.

In between is a growing love affair between the current odd couple, Gloria and the machismo-ridden 7-year old she is saddled with, viewed with astringent sentimentality. How you react to the little boy is crucial; for many he's as precocious a pain in the sawdust as **Days of Heaven**'s prescient narrator. What can I tell you? He worked for me. Some of the plotting, who turns up where and *how*, is arbitrary, to put it kindly, but as was once said about the best Bergman films, "a hot blast blows through it that makes it coherent."

The last second of **DIVINE MADNESS** is inspired: Midler forever frozen in the air in a puckish, straight-kneed leap — all she needs are cherub's wings. This concert film showcases the reprehensible Miss M. in her finest hour and a half. There isn't an uncalculated millisecond in her act. Her moments bustling around the stage between her numbers, tidying up, toes slightly in, elbows out, disposing briskly of the rubber chicken which has served as her purse, plumping up the pillows on the Harlettes' chairs are calculated carefully: a glimpse of the hausfrau under the harlot. It's as though those moments are meant to pacify: if you've been demented enough to bring your mother for example, these seconds are a signal that under all the flash and trash Bette keeps a real nice, neat apartment with all the *tchotchkes* dusted.

Her songs and their staging are richly wonderful, but she is still an imperfect judge of material. Her greatest numbers ("The Rose," meltingly sung, "Fire Down Below," "Stay With Me Baby") and her camp classics ("Boogie Woogie Bugle Boy" and "Leader of the Pack") are mixed with awful recitative. But there is not one of them in which Miss M. is not utterly endearing. She is one of the true vulgarians with the sly sweetness to carry it off. ■

MAGAZINES

Content — HATS OFF! Style — THUMBS UP! Consequence — HATS OFF!

Southern Exposure

Seems ya need to be told about **Southern Exposure**, *at least 128 pages of ad-free Southern politics, history, and people — especially well-researched anti-corporate muckrakery and unearthing of forgotten figures. Back issues on Land, Women, Music, Labor, Prisons and Folklife in the South are all worthy books for the present or prospective "Sunbelter." There's a tendency to understate the setting (quasi-tropical rain forest, mostly) while studying the characters and plots, but maybe our land and climate are just too intense to be put on paper. Unrivalled information source on the state of the Confederacy.*
—Pierre Butler

Southern Exposure
Bob Hall, Editor
$10 /year (4 issues)
from:
Institute for
Southern Studies
P.O. Box 531
Durham, NC 27702

●

Alice's culture opened new doors of perception for Hazel, too. She began to experience a new awareness of class, integrated with a woman's consciousness. Looking with new eyes at the world around her, Hazel expressed a growing sense of unfairness and injustice in songs that could be called her trademark — songs about fallen women, working women, and rambling women.

Hazel and Alice, country singers

"The whole way that working-class people deal with the world is different. There are a whole lot of things you let go by the wayside, things that you don't object to because you're afraid — and you know you *can't* object because you don't have those choices. Your livelihood depends on that paycheck every week.

"Some of these things were just earthshaking to me when I got invited to middle-class homes and became friends with people who have money. The way they relate to a situation is just so different; they have a choice — like whether or not to have a doctor, and even *which* doctor they may have. They have the power of money behind them. Even the simplest things, the way they buy food. They would spend more on just a little accessory to the meal than we would spend on a whole meal. It just seemed grossly unfair."

Content — HATS OFF! Style — EH! Consequence — THUMBS UP!

Comedy

This semi-punk, semi-fanzine, semi-slick humor magazine is only one issue old, but it's already run several memorable stories and some surprising gossip. Like Gloria Steinem's memoir about her first magazine job, helping Harvey Kurtzman (who originated **Mad** *some years before) put out* **Help!** *magazine with a staff of three. ("It's hard to find an experience like that, I know now. Each individual division of a normal magazine is so big.") Or Sid Caesar's comment on "new comedy": "When you come out with a balloon in your nose and an arrow through your head, it's like a bad cartoon and life is not a cartoon." Though ostensibly a shop-talk journal for comic writers, comedians and cartoonists,* **Comedy** *seems actually aimed at comedy enthusiasts, which includes most of us, I guess, except maybe Fred Silverman. It's thin (64 pages) and has its share of filler, but it's reaching for something special; insight into the high quality of a fairly serious art.*
—Art Kleiner

The Flying Karamazov Brothers

Comedy
John Robert Tebbel,
Editor

$12 /year (4 issues)
from:
Trite Expectations
P.O. Box 505
Canal Street Station
New York, NY 10013

●

One could suggest that the writing on your show was better because there was no laugh machine. You really had to depend on the material to get the big yoks.

Right, no sweetening. You did it live. Sitcom laughter today is phony. And the sad part is that everyone accepts it. Another sad part is that some writers today, when they hear the laughs coming out of the machine, they start believing that the stuff is actually funny. They kid themselves. There are people laughing in the audience of *Happy Days* who died in 1954. Dead people are laughing.
—Sid Caesar

●

Sets cannot be built too small. The smaller it is, the funnier it is. I don't know why. —Sid Caesar

●

For real *aficionados* the Karamazovs offer two special interludes. The first requires a knowledge of juggling's difficulty to fully appreciate: it consists of a ten minute improvisation with all four Karamazovs flinging clubs at each other spontaneously — a juggler's equivalent of a musician's jam. No laughs and nothing particularly eye-opening, but a juggling friend assured me that we were witnessing rare dexterity. The second specialty is accessible to anyone and a lot more fun. "The Champ" offers to juggle any three things the audience gives him. If he succeeds, he is to receive a standing ovation; if he fails, he gets a pie in the face. Though not exactly unbearable, the suspense was genuine the night I saw him as he struggled with a plastic Slinky, a kite and a birthday cake. He took the pie with admirable aplomb. He doesn't always have to; a week earlier, in Chicago, he managed to successfully juggle a prophylactic, an overcoat and a bag of kitty litter.

CULTURE TO COGITATE BY

"Researching the Public's Fear of the Unknown Since 1953!"

The Church of the SubGenius™
P.O. Box 140306, Dallas, TX 75214

by Jay Kinney

Enjoying the products of unusually intelligent minds, like admiring exquisitely beautiful women (or men – what the hell, I'm democratic), is certainly easy enough. Finding those products, however, can be another matter.

The following are my current nominations for brilliant, if quirky, cultural cargo worthy of incorporation into anyone's cult.

Speaking of cults, *The Church of the SubGenius, headquartered in Dallas, Texas, has to be the best instant religion in years. Admitting what most groups only imply, the SubGenius sect is avowedly "only in it for the money" but the low prices and high quality of its church publications belie the real truth: these guys are really in it for the fun of it. The fun is contagious if you've got a weakness for strange and intricate cosmologies involving UFOs, wrathful gods, pinkboys, Conspiracies, and the pursuit of "slack." Rev. Stang and Dr. Drummond, the founders of this cult for kooks, are entertaining writers and spellbinders, with a rare knack for masking nuggets of genuine wisdom in the guise of utter bullshit.*

$1 gets you their introductory pamphlet and application forms, which are worth an evening's puzzlement even if you pursue matters no further.

Church of the SubGenius, (Introductory pamphlet, $1). Membership $10/year (includes newsletter, Abnormality Potential rating, assignment of a personal Brain Watcher and "God only knows what else you might get in the mail"). Both from The Church of the SubGenius, P.O. Box 140306, Dallas, TX 75214.

Turning from Pop Religion to Pop Culture, *there's a new journal of "Mass Culture and Everyday Life," which I've found pretty exciting.* **Tabloid** *displays that same peculiar combination of radical politics and theoretical daring which we associate with the late Roland Barthes. Like Barthes,* **Tabloid** *utilizes the insights of Semiotics (the study of "signs") in its scanning of the world around us. If Barthes in his day could penetrate into the socially unconscious implications of Garbo's face or Ornamental Cookery,* **Tabloid***'s critics take much the same tack with Jack-in-the-Box commercials, I. Magnin mannequins, and Space Invaders video games. And in an admirable effort to push beyond the safe, academic realm of reviews,* **Tabloid***'s first issue features a lengthy round table discussion with radical filmmakers, screenwriters, and other media workers about the nuts and bolts of mixing politics and mass media careers.*

Cultural Correspondence, *the previous standard-bearer for this kind of undogmatic left cultural thought, has just published its final issue, so* **Tabloid** *couldn't have come along at a better moment.*

Tabloid (A Review of Mass Culture and Everyday Life), The Tabloid Editorial Collective, Editors. $5/4 issues from Tabloid, P.O. Box 3243, Stanford, CA 94305.

•

Next time you buy a box of Kleenex or walk past the Kozy Korner bar on your way to the Kwik-Kleen Laundromat, think on this. In English spelling, K is something of a spare part. Not only is it sometimes silent altogether, but the sound it does represent is one that can be written a lot of other ways as well. Alongside K there is C and CK, as well as the more specialized CH (as in **chronology, Christmas**) and Q before U as in **quagmire.** The only place K does any systematic work is in positions where C would be pronounced S, that is, before I and E as in **cite/kite** or **lake/lace.** Otherwise, as Kafka would say, K is just hanging around to be exploited by the system. Its graphic and phonological resemblance to X gets played on in words like **Kleenex.**

Here are some examples of such messages and how they relate to the linguistic and cultural history of K:

Message 1. This thing or subject is nice but not serious.

Often used in connection with the spheres of women and children, or with leisure activities such as booze and sex. Examples: **koffee klatch, kitty** (vs. **cat**), **K-Mart, Krazy-Glue, King Koil Mattress Co., Karpet Karnival, Kiddie Kare Kollege, Koolaid, Muzak, Keno,** and possibly **Kelly Girls** and **Coke.**

Historically, Message 1 derives from the fact that K and even CK occur overwhelmingly in words of Germanic and Scandinavian origin, rather than in the 50% and growing of English vocabulary that comes from Latin or Latin via French.

Message 2. This thing or subject is politically or morally sinister.

Often used with associations of totalitarianism, Nazism or some vaguer political/technological threat. Examples: **Ku Klux Klan, Kremlin, Amerika, kook, kulture, Klingons, Krypton,** the suffix **–nik** and perhaps the heartbreak of **kleptomania.** This meaning comes via the association of K with the Germanic and accompanying cultural stereotypes.

–Mary Pratt

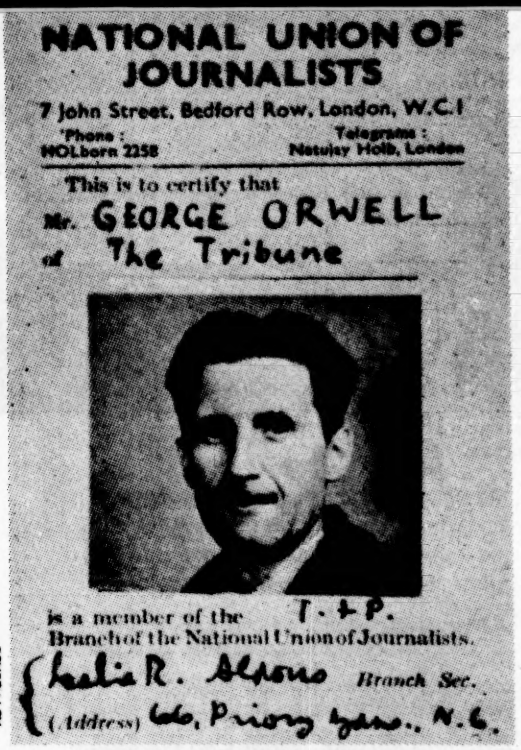
When a rock group has a name like *The Brains, (with song lyrics copyrighted by Gray Matter Publishing, no less), it seems redundant (and more than a little foolish) to rave about their intelligence. At least the Beatles had a corny, idiotic name as counterpoint to their music.*

Be that as it may, the Brains' first album (which appeared in early 1980) exhibits a tasty melodic talent wedded to lyrical irony – characteristics which immediately set them apart from 90% of all vinyl produced. If they sometimes come on like the ex-highschool Honor Society members one suspects them of being, it's with a non-snotty honesty which most intellectuals would do well to emulate. Best of all, their record contains its own critique, "Gold Dust Kids."

"We're the Gold Dust Kids./We hang around,/Travel in our circle/All over town. You see us in restaurants/And talking loud in bars./We like to think of things to say./We like to talk of art . . ."

By the end of this song, the real world has intruded into the "dream world" of ideas, and the Gold Dust Kids are in disarray. It is the virtue of The Brains that they're anchored enough in reality to tell such tales, and make them rock.

The Brains, 1980, Mercury Records, No. SRM1-3835, $7.98 list price. Check your local record store.



AS I PLEASE

Finally, with 1984 rapidly approaching, *it hardly seems necessary to sing the praises of George Orwell — we need only wait another year or so and we'll probably have reflections on his life and work coming out of our ears in the popular media. This, however, is probably all the more reason to confront Orwell on his own terms while we still have the chance.*

Besides having the precious ability to write incisively and nonrhetorically about politics and world affairs, Orwell possessed that even rarer independence of mind that compelled him to question the sweeping assumptions of his own intellectual peers. This is demonstrated time and again in the invaluable four-volume collection of his nonfiction writings spanning the years 1920 - 1950: **The Collected Essays, Journalism and Letters of George Orwell,** *edited by Sonia Orwell and Ian Angus.*

At 2000 pages total, I've hardly made my way through it all, but I need only dip into any volume at random to invariably come upon an observation or question posed by Orwell which makes me reconsider my own opinions. This is the hallmark of a valuable friend, and in my own struggles to learn to think and write, Orwell has been a trusted guide.

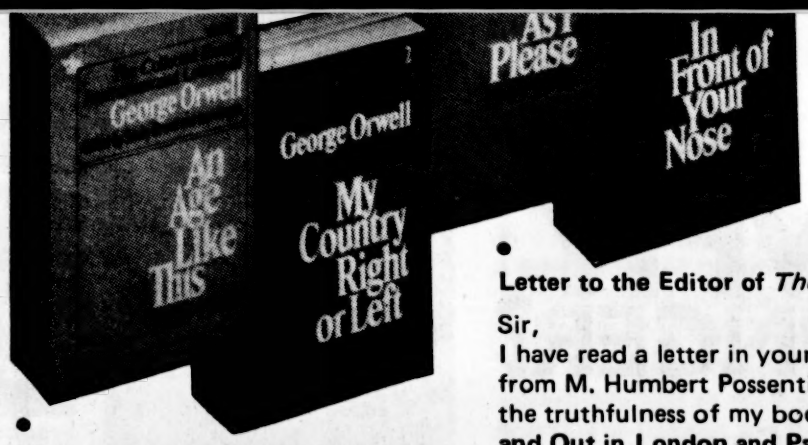
The Collected Essays, Journalism and Letters of George Orwell, Sonia Orwell and Ian Angus, editors. **Vol. One: An Age Like This (1920 - 1940),** 1968; 574 pp., $6.95 postpaid.

Vol. Two: My Country Right or Left (1940 - 1943), 1968; 477 pp., $3.95 postpaid.

Vol. Three: As I Please (1943 - 1945), 1968; 435 pp., $3.95 postpaid.

Vol. Four: In Front of Your Nose (1945 - 1950), 1968; 555 pp., $6.95 postpaid.

Four-volume boxed set $21.80 postpaid. All from Harcourt Brace & Jovanovich, 757 Third Avenue, New York, NY 10017, or Whole Earth Household Store.



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When you are composing in a hurry — — when you are dictating to a stenographer, for instance, or making a public speech — it is natural to fall into a pretentious, latinised style. Tags like *a consideration which we should do well to bear in mind* or *a conclusion to which all of us would readily assent* will save many a sentence from coming down with a bump. By using stale metaphors, similes and idioms, you save much mental effort, at the cost of leaving your meaning vague, not only for your reader but for yourself. This is the significance of mixed metaphors. The sole aim of a metaphor is to call up a visual image. When these images clash — as in *The Fascist octopus has sung its swan song, the jackboot is thrown into the melting-pot* — it can be taken as certain that the writer is not seeing a mental image of the objects he is naming; in other words he is not really thinking.

"Politics and the English Language,"
—In Front of Your Nose

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Letter to Francis A. Henson (extract)

[Part of a letter, since lost, written on 16 June 1949 by Orwell to Francis A. Henson of the United Automobile Workers answering questions about **Nineteen Eighty-Four.** Excerpts from the letter were published in **Life,** 25 July 1949, and the **New York Times Book Review,** 31 July 1949; the following is an amalgam of these.]

My recent novel is NOT intended as an attack on Socialism or on the British Labour Party (of which I am a supporter) but as a show-up of the perversions to which a centralised economy is liable and which have already been partly realised in Communism and Fascism. I do not believe that the kind of society I describe necessarily *will* arrive, but I believe (allowing of course for the fact that the book is a satire) that something resembling it *could* arrive. I believe also that totalitarian ideas have taken root in the minds of intellectuals everywhere, and I have tried to draw these ideas out to their logical consequences. The scene of the book is laid in Britain in order to emphasise that the English-speaking races are not innately better than anyone else and that totalitarianism, *if not fought against,* could triumph anywhere.

—In Front of Your Nose

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Letter to the Editor of *The Times*

Sir,
I have read a letter in your columns from M. Humbert Possenti attacking the truthfulness of my book **Down and Out in London and Paris** which was reviewed in your **Literary Supplement** of 12 January. Referring to alleged dirtiness in the service quarters of a Paris hotel M. Possenti says:

I am moved, as a *restaurateur* and *hotelier* of 40 years' experience, to deny in the most emphatic manner possible the truth of what the author says. Such a disgusting state of things as he describes is in such places inconceivable. The kitchens of large and "smart" restaurants have to be clean: the work has to be done in an orderly and cleanly manner or it would not get done at all. Such kitchens, I assert, are cleaner than those of most private houses, etc.

M. Possenti seems not to realise that these remarks are quite beside the point. The passages objected to in my book did not refer to Paris hotels in general, but to one particular hotel. And as M. Possenti does not know which hotel this was he has no means of testing the truth of my statements. So I am afraid that, in spite of his 40 years' experience, my evidence in this case is worth more than his.

By the way, M. Possenti seems to think that I have some patriotic animus against French restaurants as opposed to English ones. Far from it. I wrote about a Paris hotel and restaurant because it was of those that I had direct experience. I had no wish whatever to suggest that in this matter of kitchen dirtiness the French are worse than any other nation.

—An Age Like This

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Extracts from a Manuscript Note-book

17 April 1949. . . . In the hospital at Hairmyres, for instance, I literally never heard a "cultivated" accent except when I had a visitor. It is as though I were hearing these voices for the first time. And what voices! A sort of over-fedness, a fatuous self-confidence, a constant bah-bahing of laughter abt nothing, above all a sort of heaviness & richness combined with a fundamental ill-will — people who, one instinctively feels, without even being able to see them, are the enemies of anything intelligent or sensitive or beautiful. No wonder everyone hates us so.

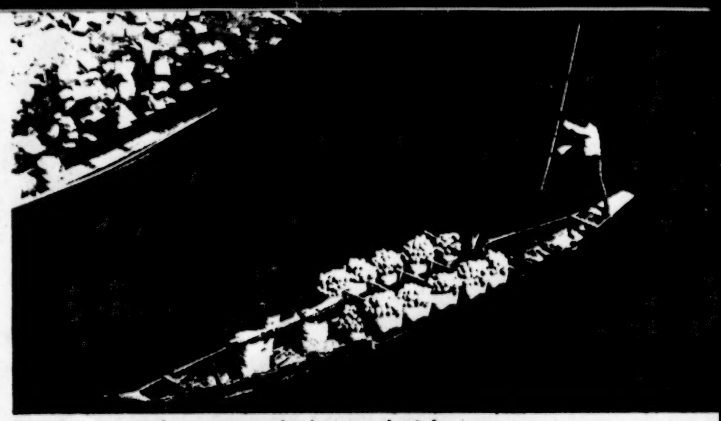
The big cannibal critics that lurk in the deeper waters of American quarterly reviews.

—In Front of Your Nose

WHY HUNGER?

by Angela Gennino

Senegalese rice field worker



Produce vendors enroute to market in Cox's Bazaar, Bangladesh

*If you have never heard anything but the conventional reasons for hunger, drought, overpopulation, desertification, etc., the literature published by the Institute for Food and Development Policy will make your head spin. Under the aegis of co-founders Frances Moore Lappé (***Diet for a Small Planet***) and Joseph Collins, the institute is devoted to dispelling the common assumptions (or myths) of global food scarcity by proving them to be only the symptoms of a much more complex problem.*

In **World Hunger: Ten Myths,** *authors Lappé and Collins stress that the root of food scarcity lies not in physical disadvantages so characteristic of underdeveloped nations such as a lack of resources and too many people. That explanation, they contend, is a myth; even the so-called "poorest" of nations possess the resources to nutritionally sustain their own populations. The problem lies rather in who controls those existing resources and what they do with them. The authors are not unique in reporting on the concentration of the most valuable natural resources in developing countries by a minute minority which exploits them for personal profit by growing export crops. What is unique is the ease with which they show how this social structure prevents access to food, imported aid, and technology by those who really need it. They also show why this is permitted to happen by Western nations.*

The politics of world hunger is a can of worms which Lappé and Collins provide an extensive overview of in an incredibly short space. They also succeed in laying down a rather radical perspective on global food scarcity in an interesting and rhetoric-free fashion that is typical of most of the institute's publications.

Now revised and updated, **Food First** *by the same authors remains the best-known publication of the institute. It takes the 10 myths and expands them to 50 more specific common questions to provide a more detailed analysis of world hunger. The success of* **Food First** *lies in its ability to maintain the same lucid and snappy flow of information in 600 pages that* **Ten Myths** *does in 50. The problem with* **Food First,** *however, is that it covers so much ground (from the effects of colonialism to population control programs) that a second and third reading are necessary to digest all it contains. After you read it you may feel moved (it's hard not to be) to either do something about world hunger or pursue further reading on some of the topics* **Food First** *covers.*

Aid As Obstacle *(Twenty Questions about Our Foreign Aid and the Hungry) by (you guessed it) Frances Moore Lappé, Joseph Collins and David Kinley focuses primarily on the global political and economic mechanisms that permit foreign aid to aggravate world hunger, not lessen it.*

A specific case study of how these mechanisms affect peasants on a village level can be found in the booklets, **Aid to Bangladesh** *(For Better or For Worse) and* **Needless Hunger** *(Voices from a Bangladesh Village). Both are descriptions of how international and domestic food policy have made a potential breadbasket into a hopeless basket-case by Bengali-speaking Americans who have spent years in the country.*

For two examples of how underdeveloped nations try to break the political economic cycle of hunger read **Mozambique and Tanzania** *(Asking the Big Questions). The authors compare the agricultural development policies of two African nations that have the same objective, self-reliant food security, but that use different "socialist" strategies to achieve that goal.*

Of the two nations, Mozambique impressed Lappé as being the more exemplary model of self-reliance, both agriculturally and industrially. **Casting New Molds** *is an interview by Lappé with Peter Sketchley who worked for several years in a steel factory in Mozambique. Peter gives a first hand account of what it is like to live and work in a newly-independent and socially restructured society. He describes how factory workers can participate in economic policy making as well as maintain industrial equipment with little if any foreign assistance.*

After reading any of the above, you may want some direction as to how you can influence food policy decisions that affect consumers both here and abroad. **What Can We Do?** *was written for that purpose. It was authored by a variety of activists that work in a wide range of areas for social change — from farm worker organizing to revealing multinational marketing practices in Africa. Each writer extends his or her own personal experiences working as an agent for social change and how he/she chose the organization that best suited their political and personal goals. In addition,* **What Can We Do?** *offers an excellent access list of national activist groups and publications to help you start your search for the appropriate course of action.*

World Hunger (Ten Myths), by Frances Moore Lappé and Joseph Collins, 1975, 1978, 52 pp.; $2.75.

Food First (Beyond the Myth of Scarcity), by Frances Moore Lappé and Joseph Collins with Cary Fowler, 1977, 1979, 620 pp.; $2.95.

Aid as Obstacle (Twenty Questions on Our Foreign Aid and the Hungry), by Frances Moore Lappé, Joseph Collins and David Kinley, 1980, 160 pp.; $4.95.

Aid to Bangladesh (For Better or Worse?), by Michael Scott, 1979, 28 pp.; $1.45.

Needless Hunger (Voices from a Bangladesh Village), by Betsy Hartmann and James Boyce, 1979, 72 pp.; $2.95

Mozambique and Tanzania (Asking the Big Questions), by Frances Moore Lappé and Adele Baccar-Varela, 1980, 128 pp.; $4.75.

Casting New Molds (First Steps Toward Worker Control in a Mozambique Steel Factory), by Frances Moore Lappé, 1980, 60 pp.; $2.25.

What Can We Do? by William Valentine and Frances Moore Lappé, 1980, 50 pp.; $2.45.

All postpaid from Institute for Food and Development Policy, 2588 Mission Street, San Francisco, CA 94110, or Whole Earth Household Store.

Angela Gennino lived for 2½ years in East Africa and the Middle East. She is always looking for publications that "fill in the wide gap between what's reported in the daily news and reality." —Anne Herbert

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Beginning Where You Are

Leah Margulies got involved in the women's movement in the 1960s because that issue is what touched her most directly. It led to a probe of the impact of multinationals on women which has led to leadership in an international boycott of one of these multinationals, Nestle's. Father Bill Wood and Steve Commins did not change their professions after needless hunger became the compelling focus of their lives. Instead, they decided to use their influence as educators and clergy to direct other's attention to what they had come to see as the most pressing issues.

—What Can We Do?

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Belief in Change

One of the most common elements in the widely disparate individuals with whom we talked is that each has experienced tremendous change throughout his or her life. All have experienced changes in their self-concepts. They have experienced themselves as initiators of change in others. To them, therefore, the possibility of change is no longer theoretical. Leah Margulies moved from perceiving herself as a dependent housewife to becoming a policy-maker in an international movement that potentially will affect millions. John Vlcek and Bob Pickford have seen how an idea of a few people could grow, within a few years, into programs — direct marketing and consumer cooperatives — affecting thousands of people. Keith Jardine saw how his whole understanding of the world changed as he came to understand how our food system works. As he said, "If I can change, so can others!"

—What Can We Do?

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What happens when food aid goes to a country where the majority of the people are hungry?

Bangladesh is the fourth largest recipient of U.S. food aid. Most people think that food aid to a country with so many hungry people surely must be helping the country.

Today, one-third of Bangladesh's sizable food aid comes from the United States. Since 1974, about 90 percent of U.S. food aid to Bangladesh has been under Titles I and III of P.L. 480, which provides dollar credits to buy the U.S.-produced food. The government of Bangladesh, therefore, has virtually total control over what it does with the food. Like most purchasers of Title I food aid, the Bangladesh government sells most of it through a ration system that allows cardholders to buy a portion of their food at a substantial subsidy. The government then uses the proceeds from these sales for general budgetary support.

Our colleagues Betsy Hartmann and James Boyce found that most of this food goes to those who could afford the regular market price — members of the urban middle class. Conservative World Bank figures confirm their observations: 27 percent of the food aid goes to police, military and civil services and to employees of large enterprises; 30 percent goes to predominantly middle class cardholders in six major cities; and nine percent goes to supply mills for grinding flour for urban bakeries.

While 85 to 90 percent of the people of Bangladesh live in rural areas and many are undernourished, a mere one-third of the rationed food grains are allotted to rural families.

—Aid As Obstacle

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MYTH ONE: People are hungry because of scarcity — both of food and of land.

The scarcity diagnosis of hunger is a way to blame nature for people-made problems. But the earth's natural limits are not to blame. Hunger exists in the face of plenty; therein lies the outrage.

Enough grain is produced in the world to provide everyone with ample protein and 3000 calories a day, about the caloric intake of the average American. (One-third of those potential calories is now being fed to livestock.) Note that this 3000-calorie estimate does not include any of the beans, root crops, fruits, nuts, vegetables and non-grain-fed meat produced.

One way to measure untapped potential is to look at the gap between current production and possible production. Only about 44 percent of the world's cultivable land is now being cropped. Average grain yields in the underdeveloped countries are less than one-half of the yield in industrial countries. Much land, presently harvested only once yearly, could provide two or even more harvests. In most cases, the barriers to greater production are not physical; rather, they are social. Undemocratic control of productive resources thwarts their development.

In most countries where people are hungry, large landholders control most of the land. A study of 83 countries showed that slightly more than 3 percent of all landholders, those with 114 acres or more, control almost 80 percent of all farmland. But these large landholders are the least productive. In a cross section of countries studied, they consistently harvest lower yields per acre than the smallest farmers, as we detail later. Moreover, many large landholders who hold land as an investment, not as the source of their food, leave considerable amounts unplanted. A 1960 study of Colombia, for instance, found that the largest landholders, in control of 70 percent of the land, planted only 6 percent.

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Even now, with resources grossly underused, Bangladesh grows enough in grain alone to provide everyone in the country with at least 2600 calories a day. Yet, according to nutrition surveys, over half of the families in Bangladesh daily consume less than 1500 calories per person, the minimum survival level. Two-thirds of the population suffer from protein and vitamin deficiencies.

If enough is produced, then why don't the hungry in Bangladesh eat? Ironically, the hungry grow much of the country's rice. At harvest time, when prices are at their lowest, many are forced to sell so much of what they produce that they do not have enough to cover their own needs until the next harvest. They are forced to do so in great part in order to pay back, with considerable interest, the moneylender-merchants, from whom they needed to borrow food at much higher prices before the harvest. Many of those trapped in this vicious circle are tenant farmers who must pay for all the agricultural inputs and still give over half of their harvest to the landlord. Not surprisingly, many landlords have become moneylender-merchants. The moneylender-merchants' hoarding of grain is a prime cause of the very "scarcity" on which they speculate. **—Food First**

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What governs the way food aid is distributed?

The volume of food aid and the way it's distributed don't seem to have very much to do with the food situation of poor people in Bangladesh.

Food aid has more to do with the government's need for revenue. The government gets a very substantial portion of its revenue from the resale of food aid, and thus frees up a great deal of foreign exchange. This enables it to buy other things from abroad, notably weapons, from the people who in many cases are giving the food aid. So it's a system for using surplus grain — a valueless resource as far as the donor is concerned — giving it a value for the recipient government to use for military purposes. Food aid strengthens the regime's military position by feeding its troops and allowing it to spend the money on weapons. No doubt it's used for other things as well, but that is one of the striking characteristics. **—Aid to Bangladesh** ■

The Geopolitics of Information

News stories about Africa, Asia or South America rarely match what filters back through friends and acquaintances who have been there. It's not so much deliberate censorship as it is the Western way of noticing and reporting, which makes non-Western cultures seem to disappear — even to themselves. The already slim chance for a developing nation to evolve its own identity in media is further complicated by new computer and broadcast technologies which by their nature ignore national and cultural boundaries. Even getting trained in programming or radio production usually means going to a developed country and picking up methods which clash with many of the world's diverse communication customs. Here's a well-written book of political analysis, spurred by recent U.N. debates about ownership and control of the world airwaves and data links (see "Tuning in to WARC," CQ Summer 1979, p. 94). While tackling the problems of the Third World in the information age, the author also made me look freshly at my Western assumptions about what media should be like here. —*Art Kleiner*

The Geopolitics of Information
(How Western Culture Dominates the World)
1980; 192 pp.

$13.95 postpaid from:
Oxford University Press
16-00 Pollitt Drive
Fair Lawn, NJ 07410
or Whole Earth Household Store

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When a European or American reporter goes to Asia or Africa and discovers 'shortages', 'instability', 'corruption', 'crisis', he is often *seeing* the society in the light of the prior images of his own society. A shortage of spare parts which prevents the Westerner from driving about is not necessarily an *abnormal* deficiency in a society which is used to having to walk for twenty miles. A different aspect of this process can be discerned in the famous agency reporter who always counts the Mercedes-Benzes at meetings of African political leaders as a *per se* sign of corruption; if, however, he were at a gathering called by the World Bank, the same reporter would probably not consider the numbers of Rolls-Royces or Mercedes a significant fact worthy of mention. The same conflicts of perception work in the reporting of politics. Any African country is vulnerable to a coup d'état committed by a small number of armed men; does this in itself constitute 'instability', or is it rather the common condition of governments which are attempting to construct new national entities out of territories which have been crudely carved from the geography of a defunct empire? When does a government become merely a 'regime', and by what criteria may it earn reclassification by Western journalists? What commodities have to be subject to scarcity — and in what geographical regions of a society — before they constitute a famine or economic dislocation? Scotch whisky? Chanel No. 5? Petrol? Bread? Rice? Bananas?

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An apposite example of the kind of threat to national economic policy-making posed to trans-border flows of data is in the computerized banking systems called SWIFT (Society for World Financial Information Transactions); this system allows finance houses to buy and sell in a single worldwide market and to make loans anywhere and at any time. It means that cash can be moved around the world with extreme speed and without any hindrance being placed through physical or legal obstacles. It holds 300,000 transactions at a time, some of considerable size, beyond all national supervision. The entire 'bank' is run on a computer which generates a kind of stateless currency, rocketing about the globe, potentially creating international currency instability as it moves. If this system acquired large sums it could bring catastrophe to struggling currencies in the course of an afternoon. In the hands of a hostile power (a government or a transnational company intent on taking revenge upon a small country attempting, say, to substitute local manufactures for cheaper imports) SWIFT could be a devastating tool. As well as causing currency and stock fluctuations, such devices can create a kind of electronic 'free port' where funds can be placed in unregulated markets. Clearly the policy of most governments in the world, including many industrialized societies, has simply not yet taken measure of the problems incurred by trans-border flows of data.

International Communications

As most of us have already figured out by now, the Middle East and Africa are experiencing more far-reaching political and economic changes than the popular press lets on. The problem is always where to go for additional information. International Communications (IC) publications from London may be a good place to start. They put out a good list of progressive information sources on these two regions that includes introductory profiles of each country and current magazines.

New Africa Yearbook 1980 *and* **Middle East Yearbook 1980.** *There's probably no better gift you can give to yourself or receive from someone else if you are at all interested in the Middle East and Africa. These yearbooks are designed beautifully and offer a comprehensive profile on each country that includes brief descriptions of geography, ethnography and infrastructure with well-written essays on political history, social and economic issues, current events and latest financial statistics. They can be valuable research tools, not to mention a supplement to any travel guide if you are planning a trip to these two areas.*

New African *and* **The Middle East** *are progressive monthlies that have a* **Time-Newsweek** *look about them but fortunately offer us a lot more for our money. Both contain in-depth news analysis, investigative features and news briefs as well as reviews of books, films and art. While* **Middle East** *includes both political and economic news coverage for that region,* **New African** *is mainly political news. For more coverage on African financial news, IC puts out a magazine devoted primarily to this subject,* **African Business.** *Though IC describes* **African Business** *as "essential executives' reading," I occasionally find it a valuable source of information for insights into African economic development patterns. All three have a wide circulation in Africa and the Middle East.*
—*Angela Gennino*

New African Yearbook, Erica Flegg and Richard Synge, Editors, semi-annual, 415 pp.; $25 postpaid.

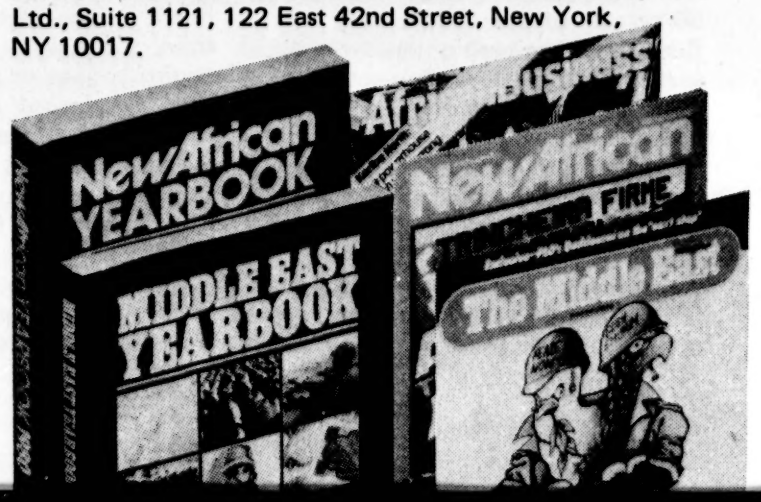
Middle East Yearbook, Pamela Ann Smith, Editor, semi-annual, 304 pp.; $25 postpaid.

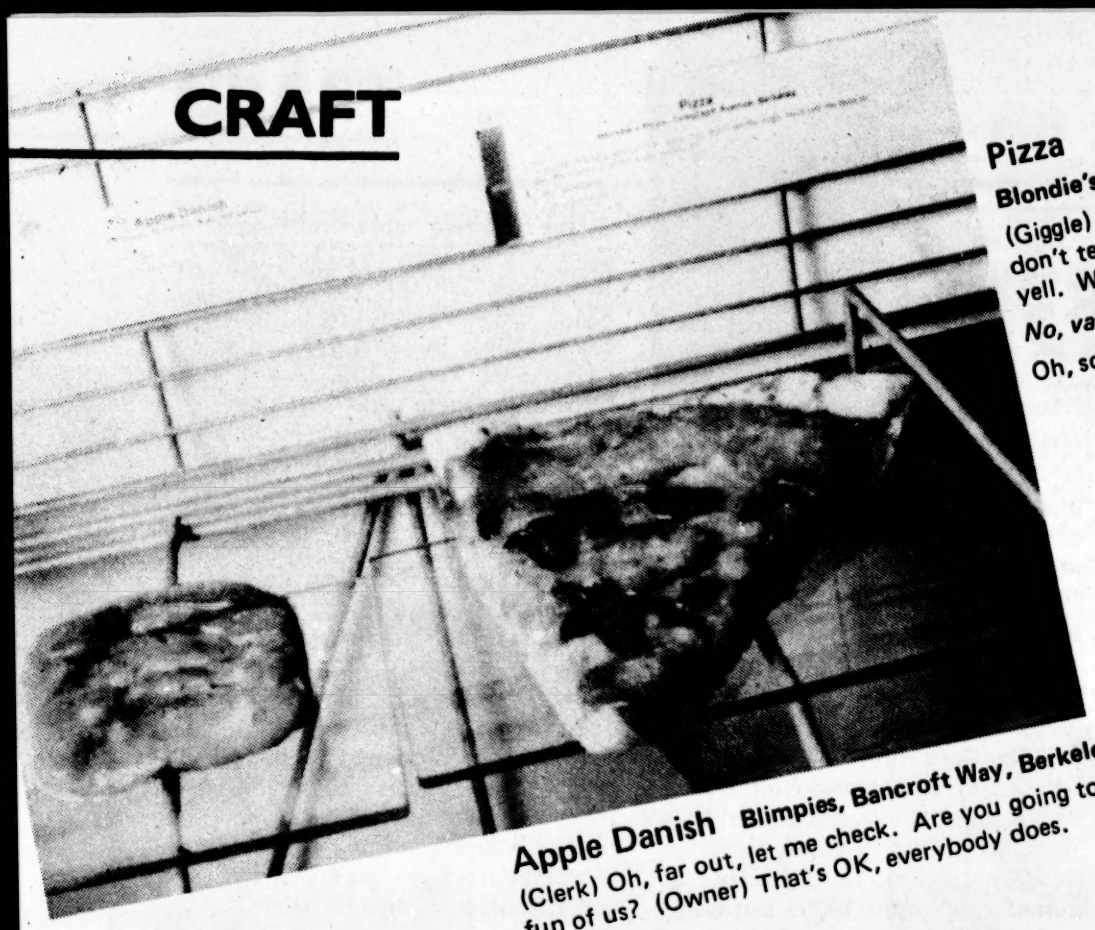
New African, Peter Enahoro, Editor, $34/year (12 issues), $50/year (airmail).

The Middle East, Raphael Calis, Editor, $34/year (12 issues), $50/year (airmail).

African Business, Alan Rake, Editor, $40/year (12 issues).

All from International Communications Publications, Ltd., Suite 1121, 122 East 42nd Street, New York, NY 10017.





Pizza **Blondie's Pizza, Telegraph Avenue, Berkeley**
(Giggle) Are you serious? Oh, sure. Just don't tell the boss. He'll yell. He likes to yell. What are you going to do, acrylic it?
No, varathane.
Oh, sounds good.

Apple Danish **Blimpies, Bancroft Way, Berkeley**
(Clerk) Oh, far out, let me check. Are you going to make fun of us? (Owner) That's OK, everybody does.

FOOD AS ART

by Anne Herbert

AT THE FOOD as Art show last Memorial Day some Cheerios were labeled "Baby Doughnuts." There was a gum machine full of used gum. People were given bubble gum and asked to chew it and put it into the machine and they did and got really disgusting about it, stringing it around and glopping it up so by the end of the show there was a morass of gummed up gum in the machine. There was a wall of yellow Twinkies, pink Snoballs and brown Hostess Ho-Ho's cut in half and varathaned, looking very garish and abstract and not like food.

Lynn Spigel and Leslie Crisfield, who put on the show, went to different restaurants in Berkeley and asked the staffs to give them their best dish. They recorded the the conversations about the best dishes and varathaned the best dishes and put transcriptions of the conversations under them at the exhibit. When they asked the man at the hot dog store, he was sitting tap dancing in his chair and said he didn't have time because he had to meet his lover in Bermuda and what did they think of his dancing, it cost him $400 to learn to dance like this. A sandwich store employee gave them a crust of bread and they said, "Do you really want to be represented by this crust of bread?" so all the employees got into making a very good sandwich using only the best lettuce and tomatoes. But they couldn't give Leslie and Lynn the sandwhich free, so they chipped in to pay for it, but between all the employees they only had enough for half a sandwich, so they put that money in the cash register, gave Lynn and Leslie half the sandwich and threw the other half away.

THE SHOW HAD three restaurant tables and a counter at the back that you could always get real food at, if you call heavy sugar treats real food. Each table had several chairs and a cloth mannequin with a head made of dough that Leslie and Lynn had baked. There were always people at the tables eating and talking. Lynn and Leslie also asked people off the street to sit at a table in the window, eating and waving at passersby. The window eaters included a stately couple from Britain, some street people, and a person who identified herself as a food sociologist.

TOWARD THE end of the exhibit, which went on for 4 days and included some special events like a mock wedding and a Nabisco Night dance where people came dressed as cookies, Lynn got frustrated because she thought the people who came weren't getting the point, which to her had to do with making people conscious of the strangeness and wastefulness of our attitudes toward food and the isolation and wastefulness of a life based on eating in cafes. She had really wanted to get people into a cafe and make them participate in something instead of maintaining the usual wall between each other, but most people came to gawk rather than participate. So she put up a sign asking people to bring in their own food and make it part of the exhibit. No one did. But on the night after the last night of the exhibit they still had the gallery so they had a potluck for people in the community and about 12 people they didn't know before came and it was a nice event. ■

SOME DO'S AND DON'T'S OF VARATHANING FOOD

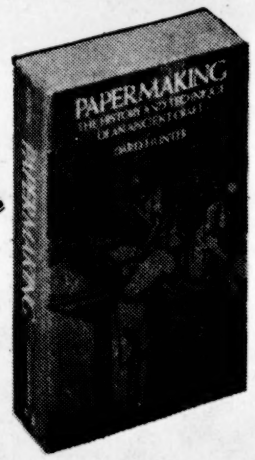
by Lynn Spigel

If you want to preserve food for display purposes, the way Japanese restaurants show preserved food in place of menus, here are some tried and true tips. I've coated many food items with varathane — some hold up, others don't. Bagels, croissants, baguettes, french fries, sweet breads, cookies, in general all non-cream-filled breadstuffs — keep well. Forget about cheesecakes, fudge pies, strawberries, truffles, sprouts, Ding Dongs, tomatoes — anything with a lot of moisture tends to rot from the inside.

As far as the process goes, it's best to buy liquid varathane in a can, not the aerosol. The spray is much more expensive — much is lost in toxic fumes. Even the liquid fumes are unavoidable, so don't varathane food in the kitchen. Do it in a well-ventilated, little-used space or outdoors. Spread newspaper on a flat surface and have paint thinner on hand for cleanup. Use an inexpensive appropriately-sized brush (usually about a ½" - 1" brush will do). Apply three to four coats to each side of your food item. Be sure each side is dry before turning or your food will stick to the newspaper. Total drying time per side in a well-ventilated space is about four hours. ■

MAKING PAPER

by Art Kleiner



The Next Whole Earth Catalog survey of bookbinding supplies (p. 505) contained nothing about how to find American handmade paper and little about why you might choose to buy handmade paper at all. Papermaker Robert Serpa wrote us and complained, so I visited him at his Oakland studio, Imago Paper Mills, a large warehouse room with vats of floating pulp and wooden molds like screen printing frames in which the pulp is squeezed out into sheets. Serpa said most handmade papers are sold not to bookmakers but to artists seeking surfaces for different printing methods, paints and chalks. Bookbinders use handmade paper for endpapers. Few hand paper makers can make enough of one type of paper for a book.

Serpa said the ways to tell a good sheet of paper are to look through it at a bright light; to hold it by one edge, flap it and hear it ripple; and to wet the tip of your finger and feel a moistened corner. Getting the thickness, grain and color right is the heart of the craft. A piece of bad paper he showed me was covered with crumbs of white pulp and flapped stiffly and awkwardly, like wet cardboard. A piece of fine paper had the texture of linen and almost the same flexible firmness.

Hand paper makers don't make much money in this country. Serpa sold $400 worth of paper in the Bay Area last year, and works as a janitor some nights. Part of the reason is that most art supply dealers stock only foreign paper. "It's also because I'm an abrasive asshole," he said, but to me he seemed more like anyone obsessed with their subject, someone who has the answer before most people have articulated the question. So people who call, like one publisher did while I was there, seeking easy advice or quickly-made paper, have to bargain with him until he gets them to come to his shop and hear his rap and see the difference between good and bad paper.

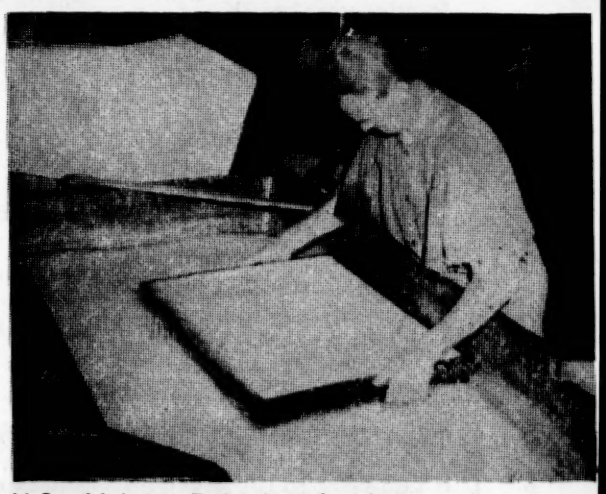
There was a stack of paper three feet high on a table in the corner; Serpa said it was $10,000 worth of inferior paper that he had refused to sell for years and now has finally decided to release as a piece of sculpture called Flights of Cellulose. The sheet of inferior paper he gave me had ripples of fluffed-apart pulp at one end, like the edge of an ocean wave. Before giving it to me he put a pinhole through the watermark.

Serpa said the best book about how to make paper is **Papermaking: History and Technique of an Ancient Craft** by Dard Hunter (1973, 648 pp.; $7.95 postpaid from Dover Publications, 180 Varick Street, New York, NY 10014, or Whole Earth Household Store). Dard Hunter started a mill in the 1920s, but went broke a year later, so the Smithsonian hired him to make paper in their basement and kept finding money to send him around the world to learn the various ancient paper craft techniques. Egyptian papyrus, for instance, is made from reeds, whose bamboo-like texture is still visible woven in rug-like patterns within a sheet. Amatl, a paper from Mayan culture with a matted surface of pressed bark, was sold in the '60s at Mexican tourist traps with day-glo psychedelics painted on by the descendants of the Otomi Indians who originated it.

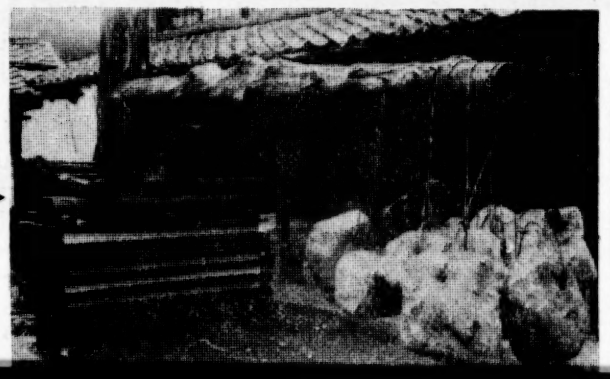
The hand papermaking community, though worldwide, is small and everyone knows each other. Serpa showed me samples from a $950 book of worldwide paper craft called **Handmade Papers of the World**, compiled by the Japanese paper firm Takeo Company between 1970 and 1980 (5 volumes; 200,000 yen from Kyuryudo Art Publishing Company, Bungeishunju Building 3, Kioi-Cho, Chiyoda-ku, Tokyo 102, Japan). A piece of Japanese paper had been dyed deep aquamarine ("The Japanese are the best; they refined what the Chinese invented. The Koreans do interesting work but seem determined to get some detail wrong each time.") A watermark on a piece of Italian paper turned out to be a Madonna drawing with a full range of tones between light grey and dark blue-grey when Serpa held it to the light. A similar watermark on German paper showed an austere crown. Some papers had bits of threadlike fiber woven into their texture. Serpa said they sometimes distracted from the quality of the paper itself, and when he held a piece of it next to a piece of plain paper, the light shone purely only through the plain sheet.

The paper suppliers listed in the **Next Catalog** carry mostly paper from overseas, which may be what you want. The source with best prices, most complete selection and most congenial service is the Daniel Smith Company, 1111 West Nickerson Street, Seattle, WA 98119. They carry goods from the two American shops who are represented in **Handmade Papers of the World** —Serpa's Imago Mills in Oakland, California and Twin Rocker Handmade Paper in Brookston, Indiana. The best way to find what you need is to buy small quantities or request samples from several different papermakers and compare. There is no substitute for looking at a sheet. ■

Mexico: Otomi Indian uses stone to beat Ficus involuta inner bark into a sheet of paper.



U.S.: Vatman Robertson in Lime Rock, Connecticut ripples the pulp.

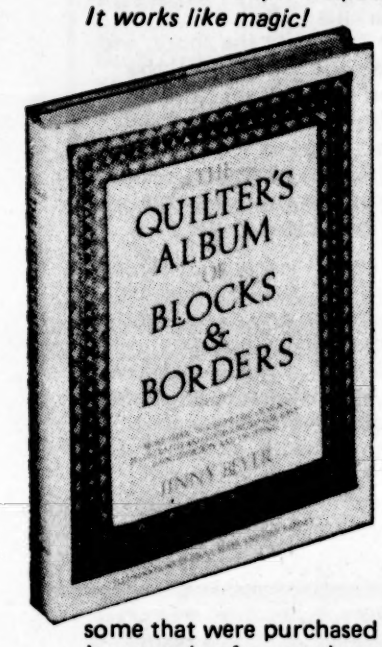


Japan: ancient lever press, more stones — more pressure.
Photos from Papermaking

India: highly polished calligraphic paper finished with smooth stone.

The Quilter's Album of Blocks and Borders

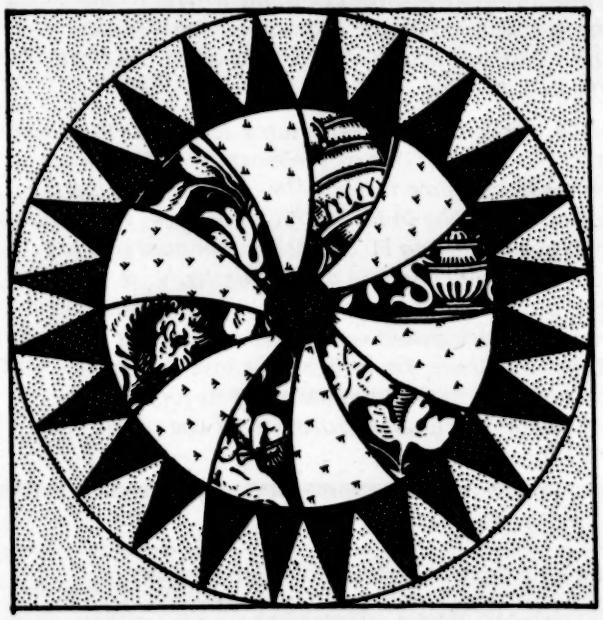
The best book I've seen for information on combining different fabric patterns in pieced quilts. There is a clearly written chapter on this skill followed by the categorized examples which can be used both as a dictionary of patterns and a source of inspiration, making it a book of use to anyone who sews, not just to quilters. The book is so strong, it would stand on its many black and white illustrations of quilt patterns alone. But you also get sound advice on patchwork drafting and designing and a transparent plastic grid sheet. You can use this grid to "decode" Beyer's especially intricate pieced blocks. It works like magic! —*Marilyn Green*



The Quilter's Album of Blocks and Borders
Jinny Beyer
1980; 198 pp.
$16.95 postpaid from:
EPM Publications
1003 Turkey Run Road
McLean, VA 22101
or Whole Earth Household Store

● **Busy Prints:** These are fabrics that I never buy — or I should say, no longer buy. My fabric boxes still contain some that were purchased when I first began quilting. It was only after much experimentation that I finally realized there are certain fabrics which simply do not work well in patchwork. Of course, my idea of a busy print may differ from someone else's; but to me these are fabrics with too much contrast between stark white or light and dark, too many colors, or too dominant a design. Pieces that have equal amounts of light and dark also tend to be busy because the eye does not have a resting place. Some examples of what I consider busy prints are shown below.

These types of prints may be used but only when combined with a very careful selection of other fabrics. In general, they do not work well with other prints and are used to their best advantage with solid colored fabrics.



Rising Sun, Ladies' Art Company, 1898. Cog Wheel.

Open Chain

Open Chain *is a well thought out monthly review of needle art books, edited by Robbie Fanning who wrote the survey of needle art magazines on page 271 of the* **Next WEC.** *It reviews books that you might not hear about otherwise — self-published books, pamphlets, etc. as well as trade publications. The author has a very readable style and knows her subject.* **Open Chain** *often includes a column of freebees and miscellany of interest to fiber artists plus an occasional project. I subscribe.*
—*Marilyn Green*

Open Chain
(The Newsletter for Thread-benders)
Robbie Fanning, Editor

$10 /year (12 issues) from:
Fibar Designs
P.O. Box 2634
Menlo Park, CA 94025

● **Products:** Rubber stamps chosen by fiber artists for fiber artists are available in $3.75 range from Room With a View (P.O. Box 6034, Norfolk, VA 23508). Many stamps are from ethnic fabric designs and can be used on fabric or paper. . . Barbara Lee, author of **Successful Machine Appliqué**, has some great supplies — blue and white wash-out pencils (not pens), tear-away stabilizer perfect for satin stitch and machine embroidery, and more. Send for list from 329 5th Ave., Venice, CA 90291. . . Cabin Fever Calicoes (P.O. Box 6256, Northwest Station, Washington, DC 20015) has books, quilting notions, and a wonderful palette of 155 100% cotton 45"-wide fabric — $2 for palette and catalog. They stock color books not always easy to find: the Albers paperback, Sargeant, Faber-Birren, and Itten.

Clothkits

Here's an exciting item for those who sew their own clothes. Clothkits is a British-based firm which started an American mail-order outlet last year. Their kits (clothing for the whole family) are silkscreen printed on strong, durable fabrics such as 100% cotton, corduroy, and wool, with all the cutting lines and pieces clearly marked. All kits are complete with necessary notions. Each catalog (twice a year) also offers matching ready-made knitwear such as sweaters, socks and tights. The colors used, both for the fabrics themselves and the prints, are vibrant, pleasant and long-lasting, planned to coordinate with other kits, and with names like damson, loganberry and cornflower. The prices are as attractive as the clothing. —*Evelyn Eldridge-Diaz*

Clothkits
Catalog
$2 /year (2 issues) from:
Charing Cross Kits
Main and Dover
P.O. Box 798
Meredith, NH 03253

Baby Dress Set style 587. → A polyester cotton dress with full skirt and pretty cherry print, matching bonnet, pants, soft shoes, and pinafore. The kit makes an ideal present for a new baby. Size: 6m-2 yrs Price:$15.95

The Grey Seas Under
The Serpent's Coil

The Grey Seas Under *is about the Western Ocean, that portion of the North Atlantic off the Canadian Maritimes, some of the wildest and most unforgiving water in the world. Many ships have been lost on its rocky shores, but just as many owe their lives to the skill and courage of the crewmen of ocean-going salvage and rescue tugboats. Farley Mowat combines his immense talent for narrative with his love for the sea to tell the true story of one of these tugs,* **Foundation Franklin**, *and her crew of Newfoundland sailors. During the 1930's and 1940's* **Franklin** *sailed in all kinds of weather, against all odds, to rescue the ships that fell victim to hurricanes and ice and U-Boat wolfpacks. In his tribute to the toughest occupation at sea, Mowat places his readers right on* **Franklin**'s *decks, through the worst the North Atlantic can dish up. Hold on to your armchairs!*

In **The Serpent's Coil**, *Mowat returns to the North Atlantic with the true story of one of the most dramatic salvage operations in maritime history. In 1948 the ex-Liberty ship* **Leicester**, *sailing in ballast for New York, was crippled by a hurricane. Listing 50 degrees on her port side and abandoned by her crew, she drifted aimlessly, refusing to die. Her rescue by the Foundation tugs* **Josephine** *and* **Lillian** *is an exciting deep-sea adventure. Mowat's description of the hurricane, from its birth above the North African desert to the final spending of its fury in the North Atlantic, is a graphic portrayal of one of the most powerful forces in nature.* —David Burnor

The Grey Seas Under
Farley Mowat
1958, 1976; 255 pp.
$1.95 postpaid from:
Ballantine Books
400 Hahn Road
Westminster, MD 21157
or Whole Earth
Household Store

The Serpent's Coil
Farley Mowat
1961; 222 pp.
£2 (about 10 International Reply Coupons) postpaid from:
Pan Books
Sales Office
Cavaye Place
London SW10 9PG
England

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By 8 P.M., in an impenetrable darkness, the gale was howling at seventy miles an hour full upon the shore, and the men in *Franklin's* pilot-house could almost feel the unseen presence of the ill-omened Sisters Reef close on the port beam. With her great freeboard acting as a sail, *Francqui* was now being blown off nearly at right angles to *Franklin's* course, and the tug had to alter, and keep on altering, until her head was pointing almost out to sea again, in an effort to hold the Belgian clear of the thundering rocks.

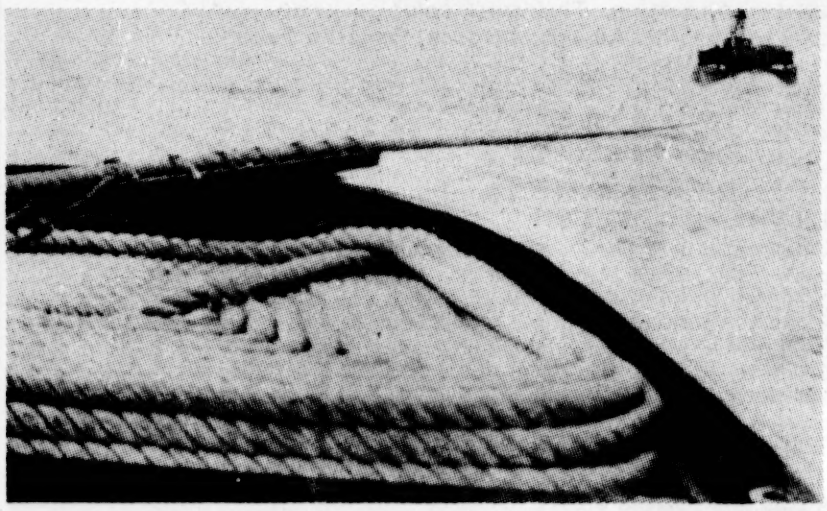
The thoughts of the people aboard the tug were concentrated on the towing wire. It was a new one of inch and three-quarter steel and strong enough for almost any task, but it was being fearfully abused. The salvors knew that there was the gravest danger it would begin to chafe at *Francqui's* bows unless a perpetual watch was kept upon it, and unless it was kept smothered in grease. They knew that if a single strand let go, the wire would part; and if that happened *Francqui* would be doomed and so, in all likelihood, would everyone aboard her.

Tugs, Towboats and Towing

Working on a tug is not the kind of job that can be learned from a book. The variables involved in each tug or towing operation are as infinite and demanding as the sea itself and can only be learned by hands-on experience under a competent master. Nevertheless, Brady's book is a good introduction to the trade. It covers the types of boats and equipment used, towing theory, and the basics of inland and offshore towing as well as rescue and salvage work. It's also a handy guide for those of us who like to know more about what goes on along the waterfront. —David Burnor

Tugs, Towboats and Towing
Edward M. Brady
1967; 231 pp.

$15 postpaid from:
Cornell Maritime Press
P.O. Box 456
Centreville, MD 21617



The main tow hawser is perhaps the most important item of gear employed in the towing trade and a successful towing operation depends to a great extent on its sound condition. The condition of the hawser, in turn, depends upon how it is handled, used and stowed, as well as its age.

The term *hawser* formerly was defined as, ". . . a plain laid" rope of 4½" circumference or larger, used for towing or mooring. Now, however, the term is applicable to wire, fiber and synthetic ropes used for the same purpose.

Tow hawsers that are *not* wound on drums of winches are to be flaked out on deck in a fore and aft direction with the bights of the lays laid abaft each other as shown.

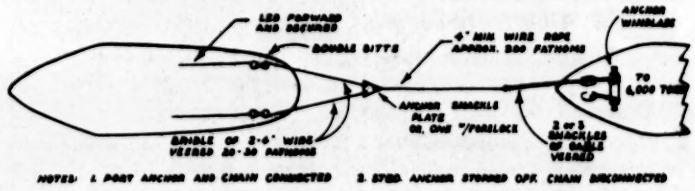
All bights of large hawsers are secured individually using stoppers of small stuff so that each bight will part (break) under a light strain, allowing the lays to pay out easily one at a time without fouling (snagging or knotting), when streaming a tow.

•

A tug will usually stop in line with a casualty in order to determine the amount of drift. Depending upon sea conditions, the tug should be positioned so that the distance to the casualty will remain fairly constant with a minimum of maneuvering while lines are being run to connect up for towing.

The casualty, if a large steamer, will usually drift downwind at a faster rate than a tug because of the greater area of hull that is subjected to the force of winds. The tug should lie off the lee bow of a casualty at a sufficient distance to enable a transfer of lines. During this time the casualty will drift close to the stern of the tug.

In most cases, the stern of a casualty will head into the wind and drift with her bow headed downwind. This is because of the larger sail area of the bow as compared with the stern, as well as the deeper draft at the stern offering greater resistance to drift than the lighter bow. In this condition it is comparatively easy for a tug to maintain a satisfactory distance between both vessels while lines are being run simply by "kicking" the engine ahead when necessary.



Rescue towing — ship towing ship

BUSINESS

'Or Whole Earth Household Store'

That phrase under access information in the *CoEvolution Quarterly* means you can mail order the item from:

Whole Earth Household Store
Fort Mason Center, Building D
San Francisco, CA 94123

Book Ordering Information

All orders: Add $2 packaging and delivery per order.
Rush Orders U.P.S. (United States): 40¢ additional charge per book.
Foreign orders (surface mail): 50¢ additional postage per book past the first five. International Registry Insurance (add $3 per order) is recommended.
California delivery: Add 6% tax (BART counties 6½%).
VISA/MasterCard orders accepted.
Telephone (415) 441-7250.

Or visit the new Household Store in San Francisco's Fort Mason Center, Building D, open from ten to four Tuesday through Saturday.

Do not send Household Store orders to *CoEvolution Quarterly*.

CoEvolution Quarterly – Winter '80 - '81 Financial Report

EXPENSES	May, June, July	Aug, Sept, Oct
Salaries and fees		
Office	$ 16,121.99	$ 20,446.54
Production	2,279.71	3,891.78
Editors	8,462.51	9,205.16
Contributors	4,530.00	480.00
Office rental, materials, etc.	9,491.50	10,272.31
Phone	972.71	1,152.39
Promotion	6,639.13	6,454.01
Printing	6,966.18 (50,000 copies)	16,553.19 (30,000 NWEC*)
Subscription process and mail	10,389.68	24,633.01
Shipping	1,380.95	323.47
Business reply	1,200.00	1,450.00
Refunds	100.00	400.00
Total	$ 68,534.36	$ 95,261.86
INCOME		
Subscriptions, gifts and renewals	$ 78,970.05	$ 97,742.11
Retaining and Sustaining	4,640.00	2,530.00
Back issues	9,064.52	4,304.10
Distribution	17,786.50	8,568.93
Total	$110,461.07	$113,145.14
NET GAIN (OR LOSS)	**$ 41,926.71**	**$ 17,883.28**

*Not all expenses incurred have been paid for in this quarter.

POINT Financial Report

	May, June, July 1980	Aug, Sept, Oct 1980
CQ (detail above)		
Income	$110,461.07	$113,145.14
Expense	68,534.36	95,261.86
Next Whole Earth Catalog		
Income	-0-	2,612.90
Expense	90,864.93	82,216.03
Other products (CQ books, WEE, LWEC, Posters, Maps, T-shirts, etc.)		
Income	15,866.58	8,117.51
Expense	1,468.24	1,497.38
Miscellaneous		
Income	41,210.51	-0-
Expense	815.00	1,317.89
TOTALS		
INCOME	167,538.16	123,875.55
EXPENSE	161,682.53	180,293.16
NET GAIN (LOSS)	$ 5,855.63	($ 56,417.61)

POINT Balance Statement 31 Oct. 1980

ASSETS	
Cash in bank	$ 27,748.22
Investments	5,683.30
Accounts Receivable Distributors	27,733.51
INVENTORY	
Back issues, CQ	171,930.40
Other products	5,760.65
NWEC inventory (Random House)	373,100.00
LIABILITIES	
Accounts payable, current	9,000.00
Accounts payable, long-term	69,883.48
Subscription liability	275,607.50
Cost of catalogs	388,100.00

U.S. POSTAL SERVICE
STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION
(Required by 39 U.S.C. 3685)

1. TITLE OF PUBLICATION: CoEvolution Quarterly
A. PUBLICATION NO.: 0 7 7 1 5 0
2. DATE OF FILING: 9/26/80
3. FREQUENCY OF ISSUE: quarterly
A. NO. OF ISSUES PUBLISHED ANNUALLY: 4
B. ANNUAL SUBSCRIPTION PRICE: $14.00
4. LOCATION OF KNOWN OFFICE OF PUBLICATION (Street, City, County, State and ZIP Code) (Not printers): 27 Gate 5 Rd., Sausalito, Marin County, CA, 94965
5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS (Not printers): same as above
6. NAMES AND COMPLETE ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR
PUBLISHER (Name and Address): POINT, 27 Gate 5 Rd., Sausalito, CA 94965
EDITOR (Name and Address): Stewart Brand 27 Gate 5 Rd., Sausalito, CA 94965
MANAGING EDITOR (Name and Address): ------
7. OWNER (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given. If the publication is published by a nonprofit organization, its name and address must be stated.)

NAME	ADDRESS
POINT	27 Gate 5 Rd., Sausalito, CA 94965

8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES (If there are none, so state)

NAME	ADDRESS
NONE	

9. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES (Section 132.122, PSM)
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (Check one)
[X] HAVE NOT CHANGED DURING PRECEDING 12 MONTHS [ ] HAVE CHANGED DURING PRECEDING 12 MONTHS (If changed, publisher must submit explanation of change with this statement.)

10. EXTENT AND NATURE OF CIRCULATION	AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS	ACTUAL NO. COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE
A. TOTAL NO. COPIES PRINTED (Net Press Run)	50,000	50,000
B. PAID CIRCULATION 1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES	14,906	12,375
2. MAIL SUBSCRIPTIONS	24,475	24,285
C. TOTAL PAID CIRCULATION (Sum of 10B1 and 10B2)	39,381	36,660
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES	382	360
E. TOTAL DISTRIBUTION (Sum of C and D)	39,763	37,020
F. COPIES NOT DISTRIBUTED 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING	8,009	11,130
2. RETURNS FROM NEWS AGENTS	2,228	1,850 (projected)
G. TOTAL (Sum of E, F1 and 2—should equal net press run shown in A)	50,000	50,000

11. I certify that the statements made by me above are correct and complete. SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER: Audrea Sharp, Business Manager

12. FOR COMPLETION BY PUBLISHERS MAILING AT THE REGULAR RATES (Section 132.121, Postal Service Manual)
39 U. S. C. 3626 provides in pertinent part: "No person who would have been entitled to mail matter under former section 4359 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates."
In accordance with the provisions of this statute, I hereby request permission to mail the publication named in Item 1 at the phased postage rates presently authorized by 39 U. S. C. 3626.
SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER: Audrea Sharp, Business Manager

ANGELA GENNINO

Andrea, right, and Evelyn break out the goodies at the CQ shower for their up and coming births, due Thanksgiving and Christmas.

GOSSIP

The Next Whole Earth Catalog *seems to be a hit, judging from your enthusiastic response and the fact that the first printing is gone – completely ordered. The second printing of 50,000, which incorporates some minor changes and corrections, should hit the bookstores around the New Year. Its sales will put us beyond the break-even point. A third (60,000) and fourth (100,000) printing have been promised us by Random House in mid-December and January. Pray for reforestation!*

Do not be deceived by the similarity of this to other issues of **CoEvolution**. *This is your bonafide annual guest-edited* **CQ**, *and the Guest Ed. is Anne Herbert, who invented assistant editing in these parts. Turns out that those skills translate fine to editing, period. Fueled by pure glucose, Anne cheer-led us all through the midnight hour of* **Catalog** *production, zipped off to New York (accompanied by K. O'Neill) for a restful week highlighted by the Picasso extravaganza, returned here and hit the dirt running to edit 100% of this* **CQ**, *a performance which she and we greatly enjoyed.*

Meanwhile, ol' blue eyes (SB) has been in England, attending a conference on merchant sail; and Greece, scouting charter vessels with Schoolshipper Mary Crowley and friend Patty Phelan. Land Use Editor Rosie Menninger has pulled up stakes and moved to Fort Collins, Colorado, to start an agricultural news service. She says she's "trying to write stories about agriculture that are interesting enough to be published in urban newspapers, trying to bring city folks and country folks closer together." Izzy Kirkland also moved, to pursue her artistic career in the Apple, leaving the one and only copy of **Lust**, *her flaccid and wildly erotic latex book, as a memento.*

We've been sampling the delights of punk cuisine lately. Annette LaBette, manager of the Contractions, and Tim Ennis, drummer with 84 Rooms, have cooked as well as clerked during this production. Art's now commuting by bicycle – it's given him a nice glow. **A Look Inside Robots**, *his new book, will soon be available for $9 postpaid from Raintree Children's Books, 205 West Highland Avenue, Milwaukee, WI 53203.*

Lorrie Gallagher and Lois Cohen, another part-time hand, joined eight others for a homegrown, noncommercial 225-mile rafting trip through the Grand Canyon.

Kathleen and David have really knocked themselves out designing this issue, trying new typefaces and things like running the type around the poppy on page eight, a feat that looks simple enough, but which requires specifying the number of letters in each line. That diaphanous poppy came in over the transom, sent by André Bruwer, a radiologist who obligingly x-rayed the crab and bagel as well. An assortment of his images is available on note cards. For ordering information, write Skiagraphics, P.O. Box 1272, Tucson, AZ 85732.

Last, but not least, this place is even pregnanter than it was last time we gossiped. By the time you read this, there'll be the patter of four tiny new feet on the Whole Earth. But as of this writing, Evelyn and Andrea, and all the rest of us are waiting expectantly.

—Stephanie Mills

Thank You

This list of retaining subscribers includes only those who became retainers or renewed retainers since the last issue, as of 11/20/80. Retaining and Sustaining Subscribers get their magazine delivered first class (airmail) for a year. Maniacal Subscribers get CQ for life. Each of the donation amounts (minus $14) is tax deductible.

Maniacal Subscribers ($1000)

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Gene Combs
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Kentucky
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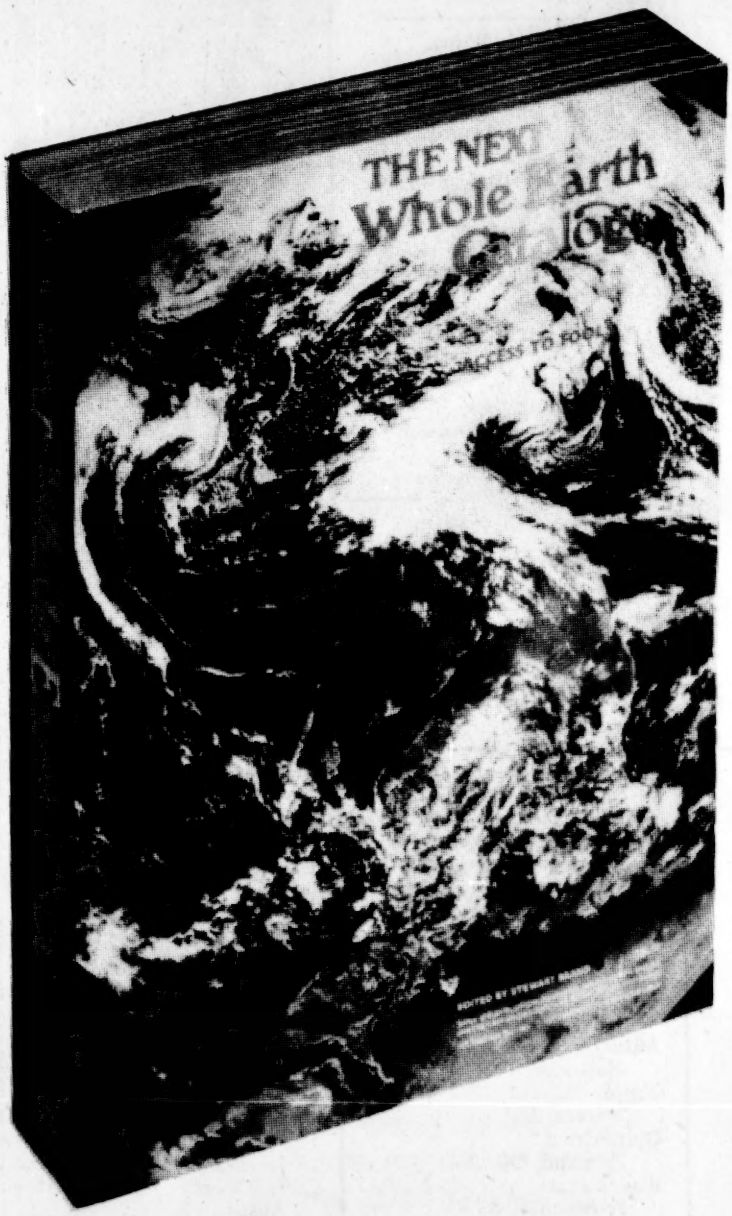

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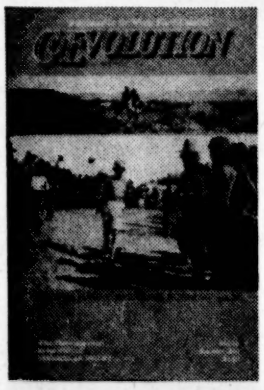

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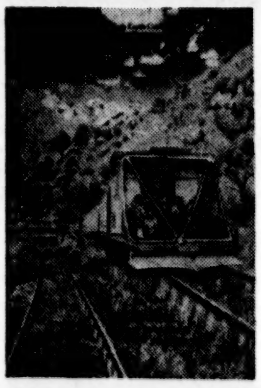

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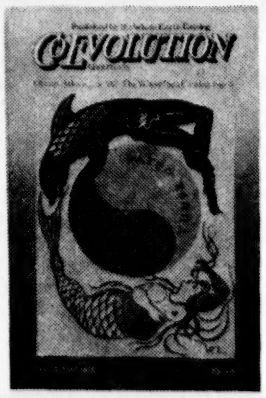
Special oceans issue — John Todd on ocean arks, articles on wooden boat restoration, the future of the fishing business, and antisubmarine warfare, and 30 pages of access to boat tools in the Whole Sea Catalog.



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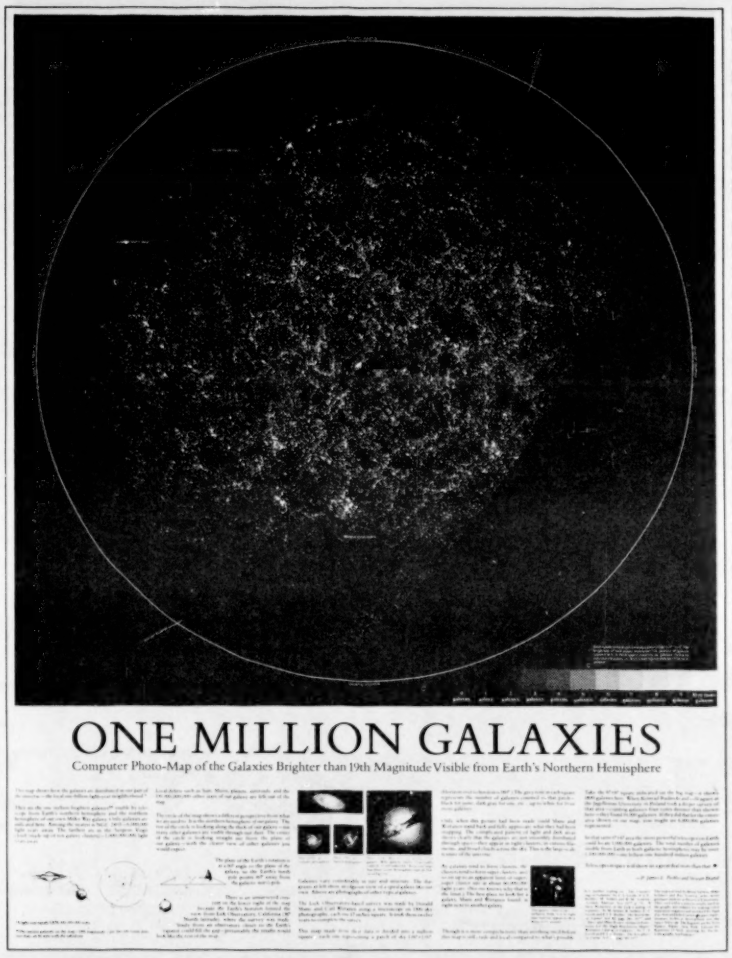
Such a classy item that people will swipe it from your dryer at the laundromat if you don't look out. Navy blue with an azure Earth and white wings and type. Five sizes, all of them cotton, and slightly shrinkable.



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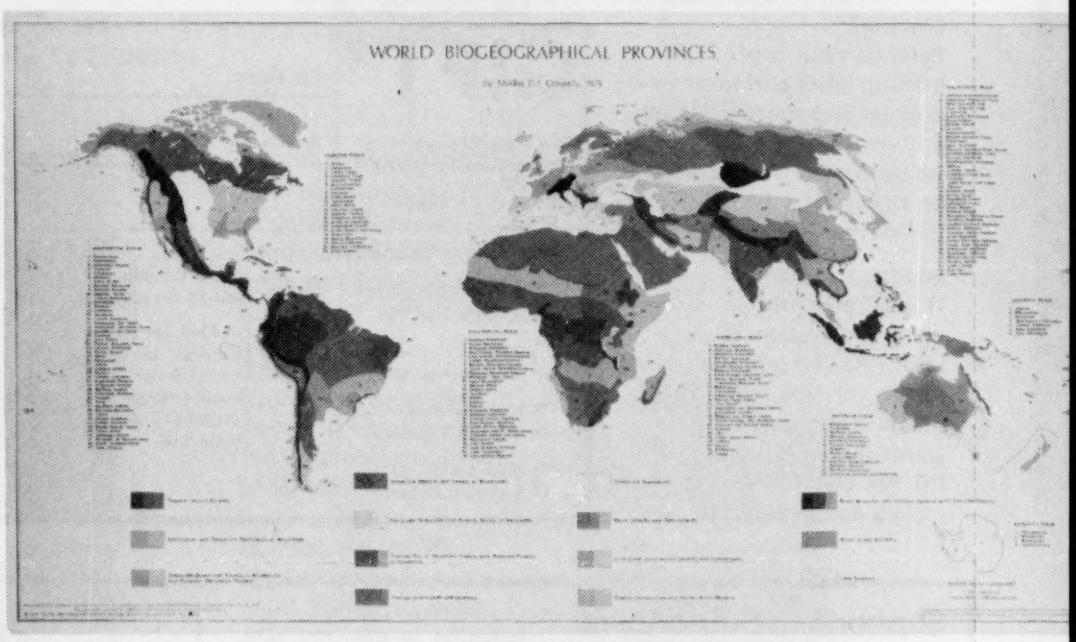
—Philip Morrison
Scientific American

World Biogeographical Provinces Map $3.50 →

Charting biological politics which transcend nationality, Miklos Udvardy's map "can be a guide to locating the kind of country in which you feel at home," says Ray Dasmann, whose classic article "Biogeographical Provinces" accompanies the map. The first two printings of this 39" x 22" wall-full sold out; the third presented an opportunity for correction and refinement.



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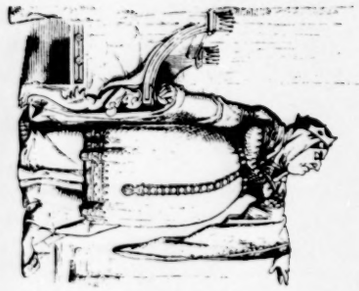

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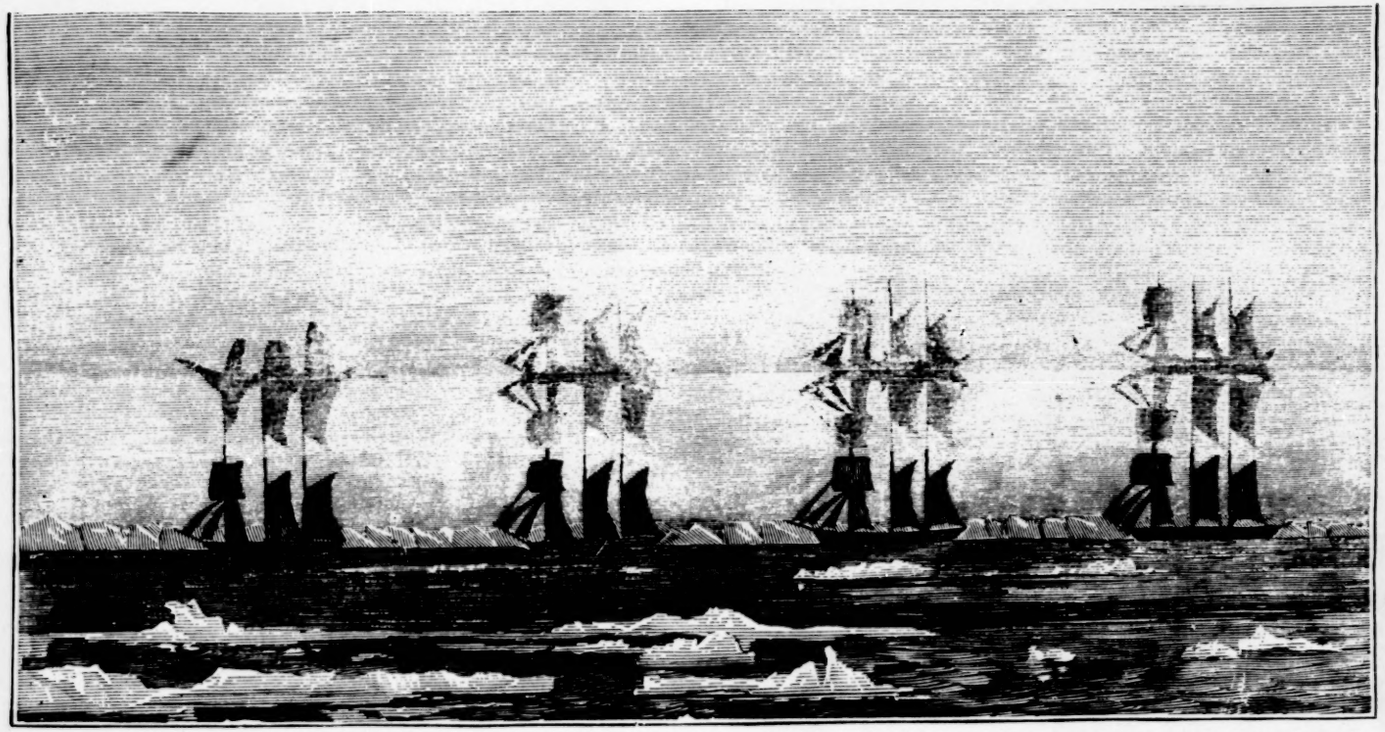
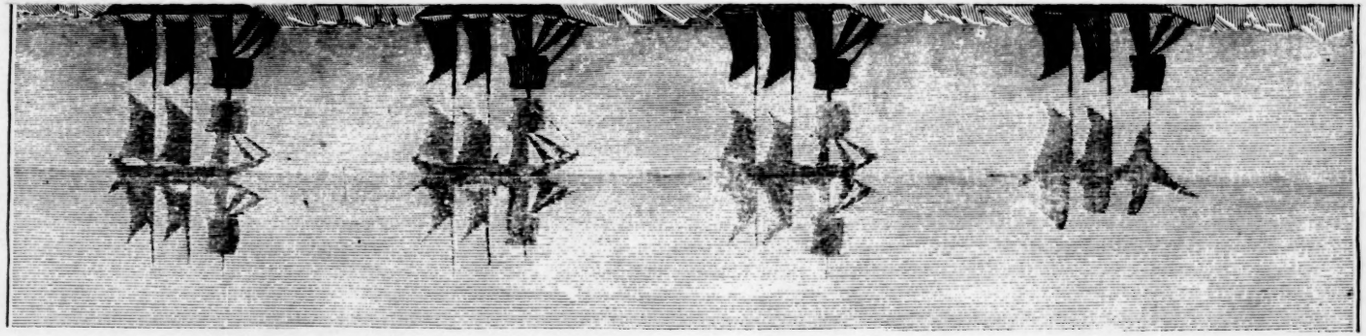


AN EFFECT OF MIRAGE OBSERVED BY CAPTAIN SCORESBY, WHILE CRUISING OFF THE COAST OF GREENLAND IN 1822.



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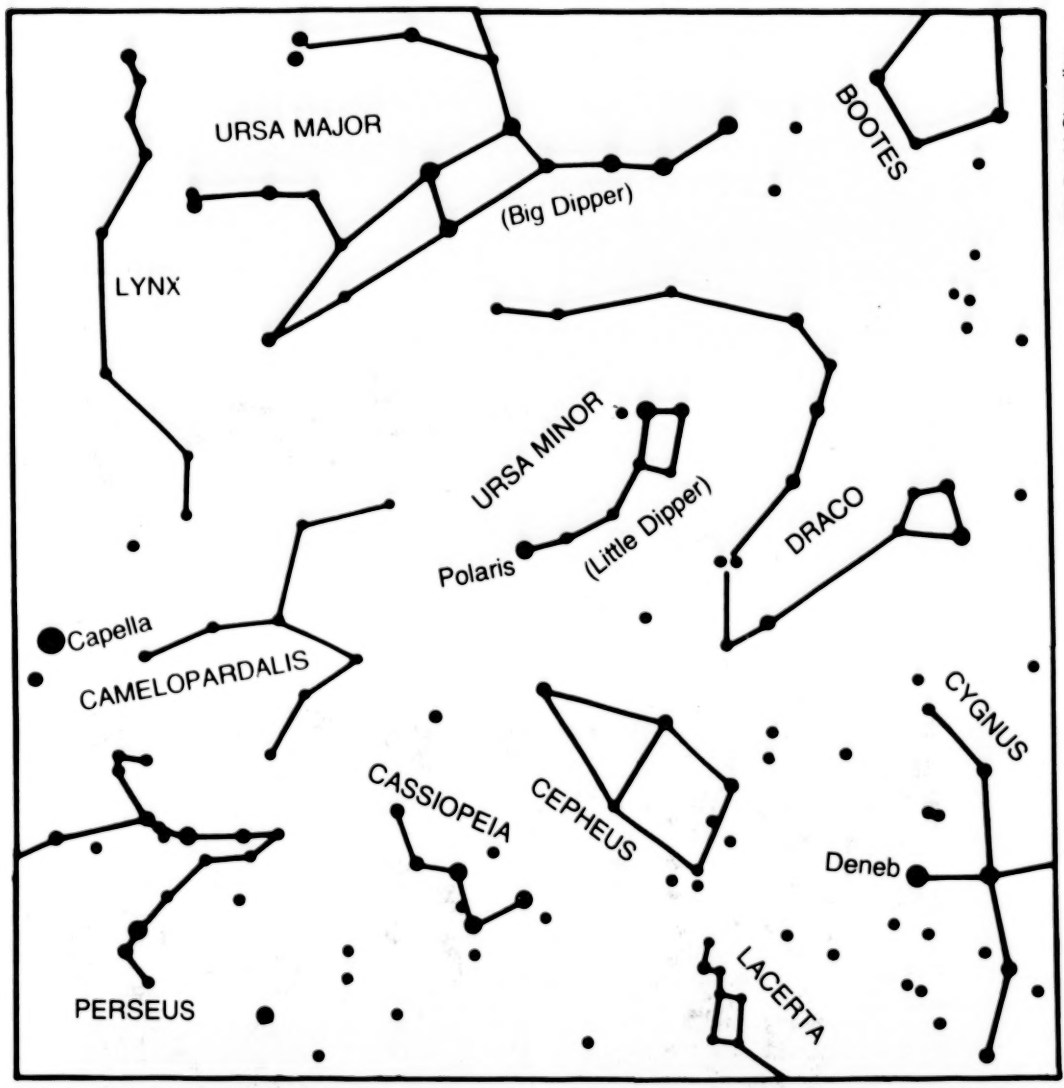


© 1977, David Chandler

You wrote in your **Space Colonies** *book wishing you could see the stars three dimensionally. Here's how.*

*1. Get away from the *!@ city. I can send you twenty pages of closely reasoned arguments against the ubiquitous unshaded mercury or sodium vapor street lamps, if you would like. Not seeing the stars is just one of them. Not really seeing the stars makes people subtly ill.*

2. Know how far what you are seeing is away. Know Rigel is 500 light years away from us while Sirius, nearby apparently in the sky, is only 8.6 light years (if I remember correctly – exactitude isn't important, relative position is) – and make an attempt to see them that way. Knowing which blurs are galaxies which are a long way away and how to use peripheral vision to see them best helps.

3. Good Colombian is a fine visual aid.

4. Keep trying.

Terence P. Yorks
Bellvue, Colorado

P.S.: 100 miles isn't too far to get from those damn lights, though a narrow mountain valley works if your neighbors aren't idiots. Knowing what nice things there are in the sky is a nice remedy for fear of the dark, and uses a lot less irreplaceable and smelly coal or oil or – worst – atoms.

P.P.S.: Regarding "seeing" them at various distances – imagining travelling through them, and which ones would go by first helps, too. Relating distances to stars on a map might be a before-going-out step.

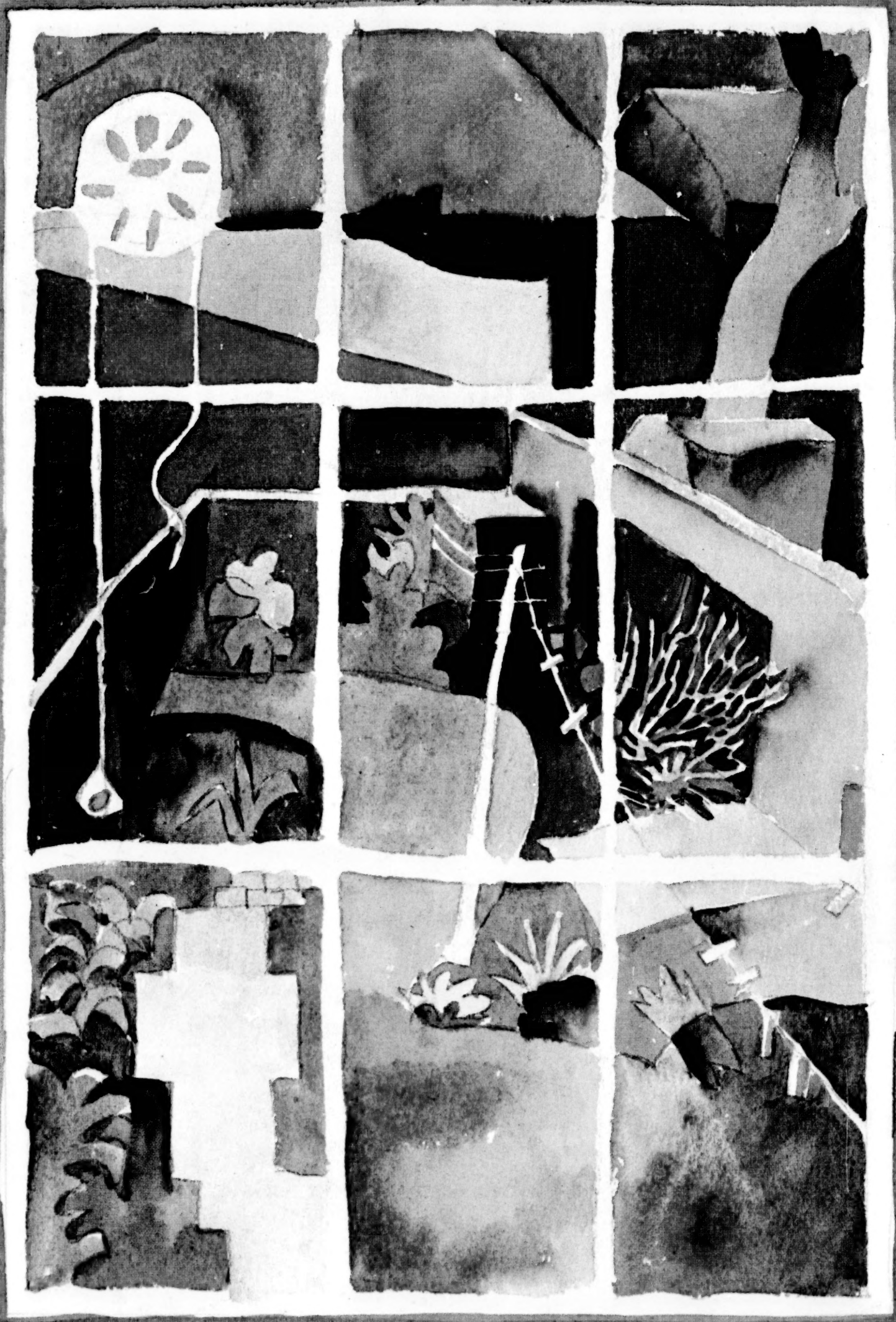
Seeing 3D

This stereo picture of the stars in three dimensions comes from a set of 14 such pictures of different sections of sky drawn by telescope and star chart designer David Chandler. Though they are sold with a 3-D viewer, you can see them (or any other 3-D picture) without a viewer with a little practice.

Hold the page about nine inches from your eyes. Slowly cross your eyes, making the two black squares of sky go out of focus and divide into two squares each. All four squares will overlap somewhat; make the two inner squares move together until they exactly overlap each other. You will seem to be looking at a row of three similar squares. Slowly bring the white dots of the center square into focus.

If you have trouble, try tilting the top of the page slightly toward the left or right. If you can't cross your eyes easily, practice by holding your finger nine inches from your face and keeping your eyes focused on it as you move it to the tip of your nose. Practice helps a lot.

The chart above the stereo picture names the constellations and some bright stars in that section of sky. The full set of stereo star pictures is printed on 4" x 8" cards, designed so you can study them just before going outdoors to lose yourself in the real stars. They're available for $6.95 postpaid from Astroscopics, P.O. Box 309, LaVerne, CA 91750; or from MMI Corporation, 2950 Wyman Parkway, Baltimore, MD 21211. MMI also has a great comprehensive catalog of astronomy pictures, charts, tools and teaching aids for $2 postpaid. –Art Kleiner



My neighborhood as far as we can see